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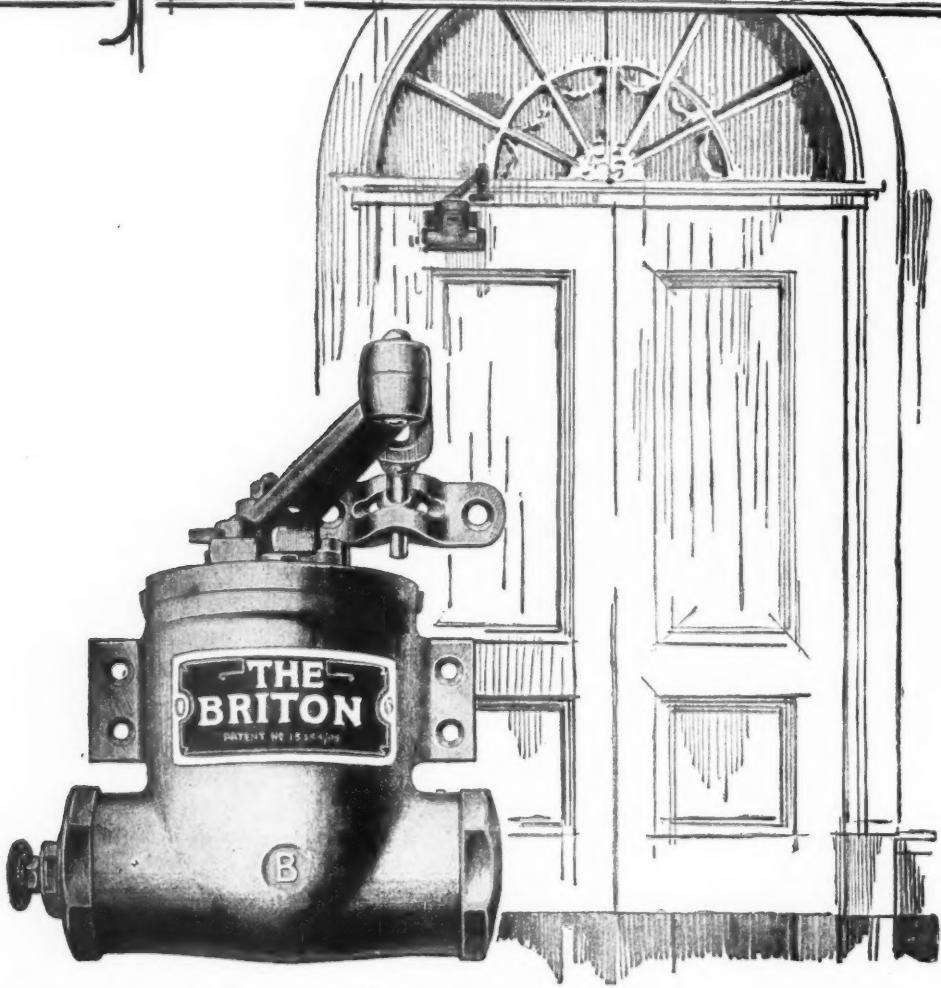


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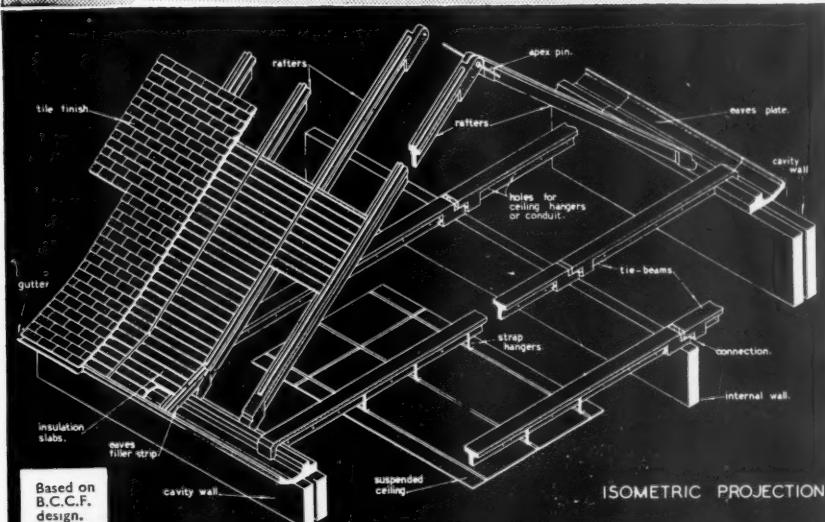
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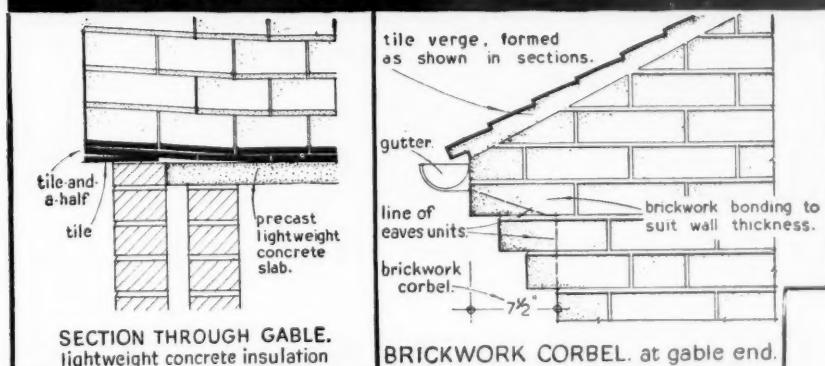
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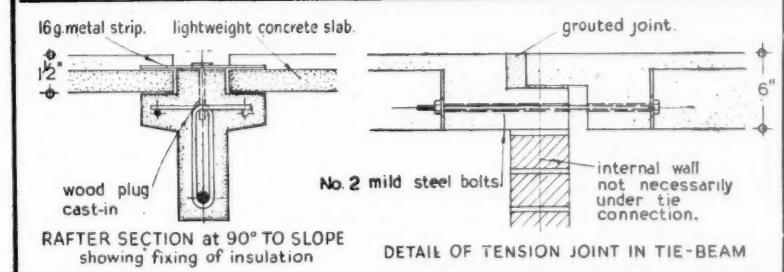


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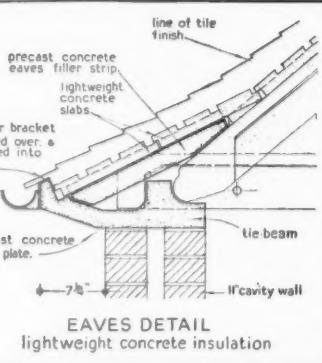
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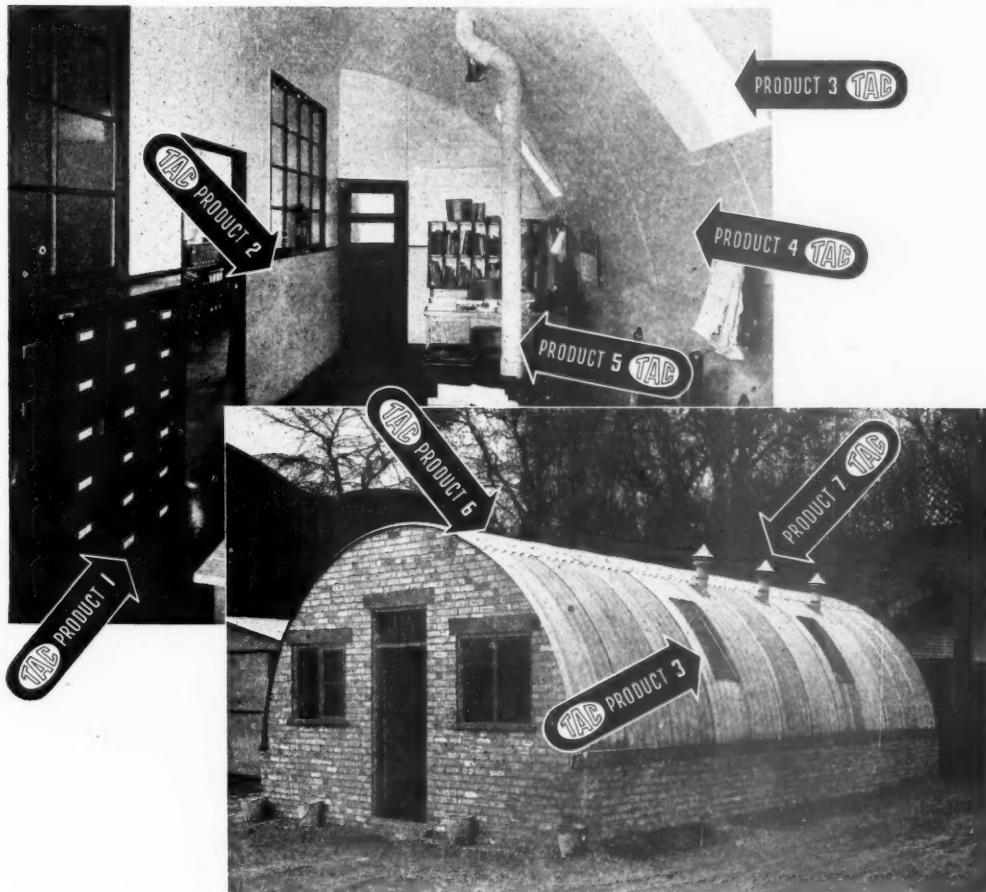
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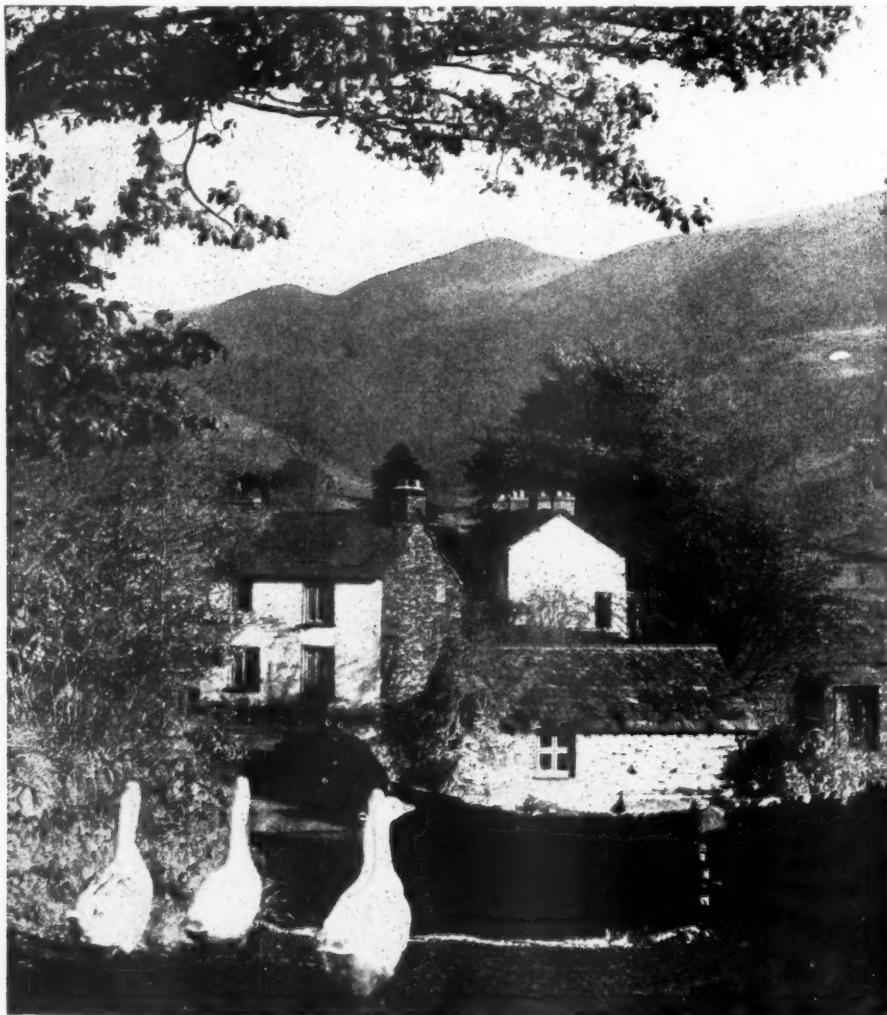
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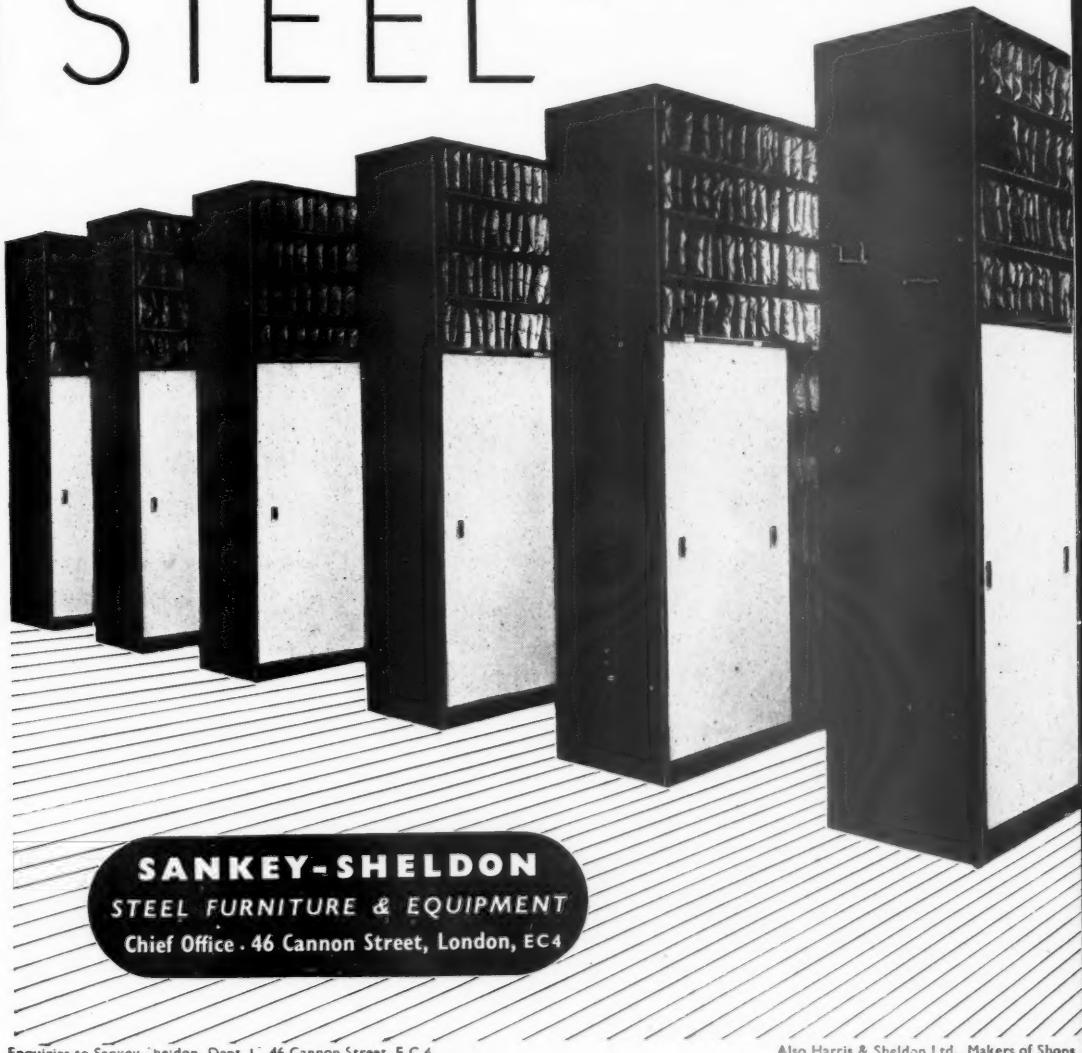
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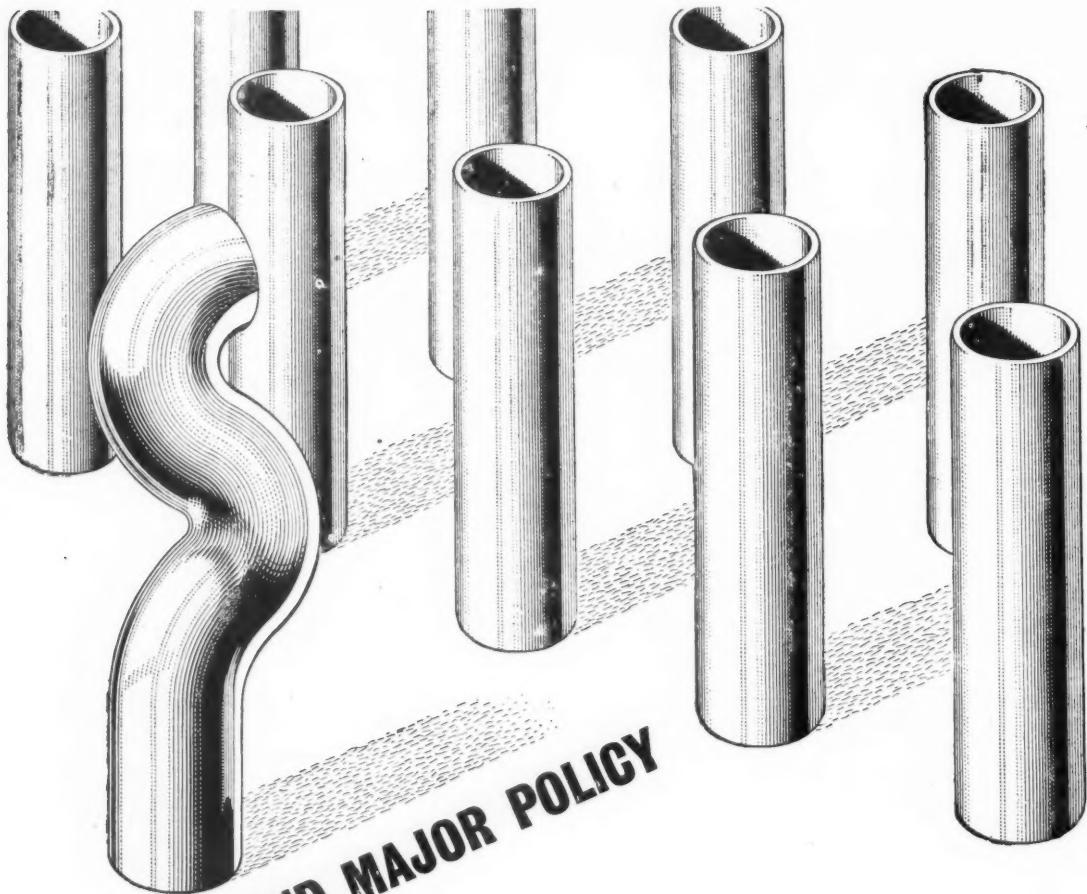
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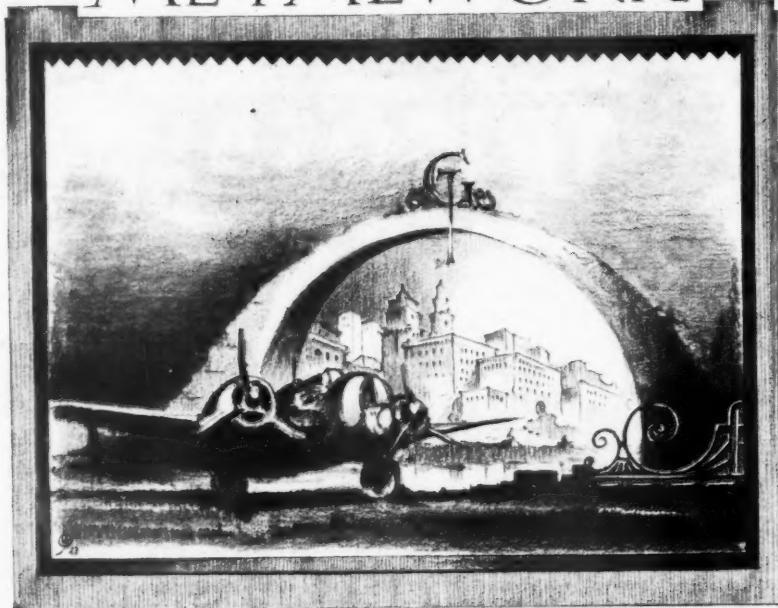
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JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

3rd Series]

[Vol. 51

No. 1

NOVEMBER 1943

A reconstructed area in London. Part of the model of Stepney, at the Royal Academy Exhibition of the County of London Plan.



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Journal

THE A.B.S. APPEALS

Mr. Percy Thomas, as President of the Architects' Benevolent Society, has made the following appeal for the A.B.S. 1943 Half-Crown Fund.

The war is making life specially difficult for the aged, the infirm, and widows with young children, and throughout the country many who are in desperate need apply to us for help.

We do not want to be forced to refuse any for lack of funds, and I am therefore making a Christmas appeal to architects for donations to enable us to help those members of the profession and their families who are in distress.

This appeal is short, so as to save paper, but our need for funds is urgent. Will you help us to grant aid where it is sorely needed, by sending at least one half-crown—more if you are able, but the smallest sum will be received with gratitude?

This appeal is addressed to all the 14,000 registered architects who share this responsibility for the welfare of their aged and infirm colleagues, and the widows and children of men who have died after service in the profession which has brought insufficient rewards to assure freedom from want. The restrictions of the paper control make it impossible for the A.B.S. to approach every architect in the country personally, and so an extra responsibility

lies on the R.I.B.A. JOURNAL and the other architectural papers to assure that their readers respond whole-heartedly.

To-day unemployment may not be a serious problem, but A.B.S. responsibilities have increased none the less. The Society receives many applications from widows whose husbands' deaths have been caused by the war, either directly or indirectly, and who are suffering from the economic stress caused by unemployment in the earlier war years and in the years before the war. Last year 108 people were helped, their ages ranging from a few weeks to 94 years.

Support for the A.B.S. is urgently wanted, not merely to meet the large present demands on its resources, but to maintain a sufficient reserve to meet the demands of the future. Actually the A.B.S. never does maintain a reserve; whatever funds it receives are immediately in demand and can be well used.

When the last half-crown appeal was made two years ago about £730 was received. This year we must do even better. R.I.B.A. members must not be content to give only the half-crown asked for; that is the least it is hoped to receive, and no member should hope that the average will be raised by other people's larger donations. What is wanted is nothing less than each member can afford.

If anyone would like to know more of the work done by the A.B.S. the Secretary—to whom subscriptions should be sent, at the R.I.B.A.—will be pleased to answer enquiries.

FLIGHT-SERGEANT AARON, V.C.



Acting F/Sgt. Aaron, D.F.M., who has been posthumously awarded the Victoria Cross, was a second-year student at the Leeds School of Architecture. He was captain of a Stirling on a raid on Turin on 12 August. Although seriously wounded he brought his bomber home to an Allied airfield. The official citation says: "In appalling conditions he showed the greatest qualities of courage, determination and leadership and, although wounded and dying, he set an example of devotion to duty which has seldom been equalled and never surpassed."

THE SECRETARYSHIP

On Sir Ian MacAlister's retirement on December 31st Mr. C. D. Spragg, who has been Assistant Secretary for the past seventeen years, will take over the duties of Secretary until the end of the war.

Mr. J. B. Turner has been appointed Acting Assistant Secretary. He will take up his duties on December 1st.

SCIENCE IN THE ART OF LIGHTING

A JOINT R.I.B.A.—I.E.S. MEETING

The place of science in the Art of Lighting is to be the subject of a discussion at a joint meeting of the R.I.B.A. and the Illuminating Engineers' Society to be held at the R.I.B.A. on Tuesday, 18 January 1944 at 5.30 p.m.

The subject will be introduced by Mr. R. O. Ackerley, Past-President of the I.E.S., and Mr. A. G. Macdonald [F.], Chairman of the Architectural Science Board.

THE NATIONAL TRUST COMPETITION FOR COTTAGE AT WEST WYCOMBE

In 1934 the National Trust acquired from the Royal Society of Arts a considerable part of the village of West Wycombe, Bucks., and have since bought still more of the village.

The village is a practically unspoiled example of sixteenth and seventeenth century traditional work in local materials. It lies on the London-Oxford road immediately beyond High Wycombe.

On the south side of the main road was a small factory which has been demolished. The National Trust are promoting a competition for designs for cottages for the redevelopment of the site. Architects can obtain full particulars of the competition from the National Trust, 7 Buckingham Palace Gardens, S.W.1, on payment of a deposit of £1, which is returnable to genuine competitors, or to anyone returning the conditions and plan.

The Trust is anxious that the new cottages, which are to be for working class tenants, shall be a real contribution to the beauty of this famous village and also to the problem of cottage designs for villages to meet modern needs. Special consideration is to be given to the practical aspects of the interior design and fittings.

The assessors of the competition are Messrs. Darcy Braddell, Edward Maufe and William Weir.

Prizes: 100 guineas, 30 guineas and 20 guineas.

It is hoped to be able to erect cottages according to the winning design after the war.

JOURNAL INDEX AND BINDING

The fiftieth volume of the 3rd Series of the R.I.B.A. JOURNAL was completed with the October issue. The present number starts the fifty-first volume.

The Index to Volume 50 is published separately and will be sent free without further request to all who received it last year. Those who want the index and do not receive copies by the end of December should write to the Editor.

It will be possible to provide bound volumes as in previous years, though the difficulties of getting binding orders fulfilled are considerable.

Orders should be addressed to the Secretary, R.I.B.A. The styles are as follows: Bound in paper sides and with strong linen back, 3s. 6d., post free. Bound in buckram boards, gilt lettering, 7s. Binding cases for use in binding members' own loose copies, 4s. 6d.

We shall be glad to receive back loose numbers from members who receive bound volumes.

THE ROYAL AUSTRALIAN INSTITUTE OF ARCHITECTS

The Royal Institute of the Architects of Western Australia has amalgamated with the Royal Australian Institute of Architects, so that now architects throughout the continent are united in a single Institute. The Western Australian architects now form the Perth Chapter of the R.A.I.A.

In a leading article in the *Journal of the Architects of Western Australia*, the editor points to this amalgamation as a step forward not only in the form of unity, but as a means of improving the status and influence of the architects of the country through the existence of a complete and united Federal body.

"The future," he says, "will no doubt present many architectural and sociological problems which demand new ideals, new outlook, and, possibly, machinery, with which to solve them, but if these points are dealt with expeditiously and backed by the combined forces of all Australian architects, there should be found a satisfactory solution."

MR. EDWARD MAUFE

Mr. Edward Maufe, A.R.A. [F.], has been elected an Hon. Fellow of St. John's College, Oxford.

EXAMINATION FOR THE R.I.B.A. DIPLOMA IN TOWN PLANNING

At the Examination held in July 1943 Major G. A. Henry [F.] was successful and has been awarded the R.I.B.A. Diploma in Town Planning.

At the Examination in Colombo in July 1943 Mr. Jack Blackburn [A.], was successful, and has been awarded the R.I.B.A. Diploma in Town Planning.

PAPER BY DR. FABER AT THE INSTITUTION OF CIVIL ENGINEERS

A meeting of the Structural and Building Engineering Division of the Institution of Civil Engineers will take place at Great George Street, Westminster, on Tuesday, 30 November, at 5 p.m., when a paper by Dr. Oscar Faber [Hon.A.] on "Difficulties encountered and overcome in connection with constructional work" will be brought forward for discussion.

Members of the R.I.B.A. are invited, and those who wish to receive advance proofs are asked to notify the Secretary, R.I.B.A., of their intention to be present.

TERRACE HOUSES IN SWITZERLAND

Architect, W. VETTER

The following article by Alfred Roth, of Zurich, translated from the Swiss architectural and art journal *Werk*, is of interest for several reasons. First, it illustrates a modern version of terrace building—a form of housing which according to many public opinion surveys, is reputed to be as unpopular as flats, but which is universally accepted by planners and architects as both desirable and essential in any urban rebuilding in England. Secondly, it illustrates remarkably well a half-way-house between prefabrication and

traditional methods of construction; both are used here with discretion and taste. The job remains an architect-controlled work throughout. Thirdly, it describes a building principle as much as a single group of particular buildings. As the author explains, the system is capable of adaptation to meet local needs and to employ the resources of small building firms and local materials and at the same time uses these resources so that the maximum advantage can be taken of the speed and economy of part pre-fabrication and standardisation.



As a contribution to unit construction in the March number of *Werk*, the problem of constructing with standardised elements was demonstrated by the *Durisol* system. The system used in the Bockstreich Settlement, in contrast to the *Durisol* method, which used small elements, uses large prefabricated timber elements. It is not a process of full-scale industrial production, but of semi-industrial production which can be executed by medium and small-sized factories without special adaptation of machines.

The standardising and preparation of single structural elements is, however, not only confined to the façade, which in the present scheme is the principal element, but concerns also the sanitary and heating equipment and also doors, windows, cupboards and panelling.

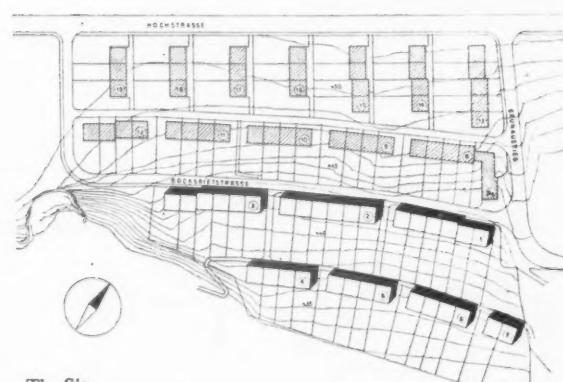
The architect was concerned to include all possible parts of the work within the process of standardisation in order to achieve the special aims of shortening building time and of lowering costs. He succeeded in shortening the time on the first part of the project to three months and the financial results were also well within expectation. In the later stages it is expected that even further improvements in time and cost will be achieved as the result of experience gained in the earlier periods.

The Bockstreich housing scheme is a contribution to the solution of post-war housing when the time factor will be of outstanding importance. It is probable that the system will prove suitable in districts where there are no large factories, but where there are good small builders and carpenters, and where it is necessary to "make do" with local materials.

The standardisation and prefabrication of the particular Bockstreich example is not of general validity, but it admits of adaptation to local conditions elsewhere.

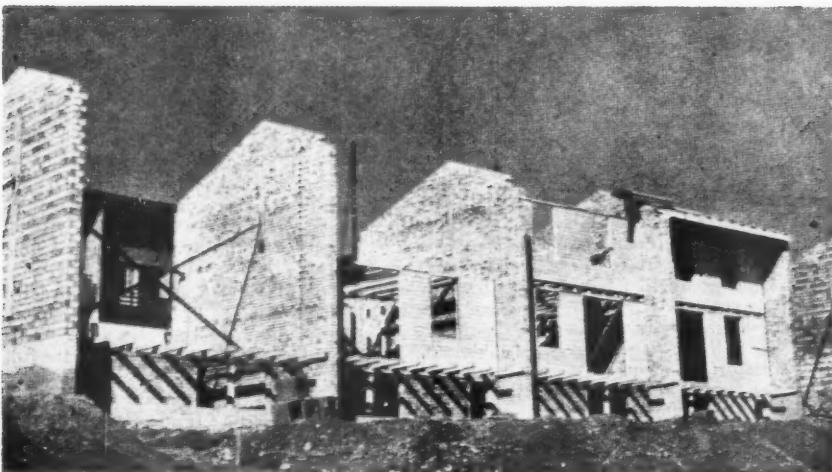
The unit measurements of the façade elements in this particular example arise from the particular house-type in question, but above all the system is not only well thought out technically as a structure, but as a matter of the co-ordination of the whole process of erection and site work.

Practice has proved that it is absolutely necessary to conceive the structural task in its entirety, in which the architectural, technical and financial aspects are bound up together. This requires a high standard of organisation and exploits to the full the architect's aesthetic capacity.

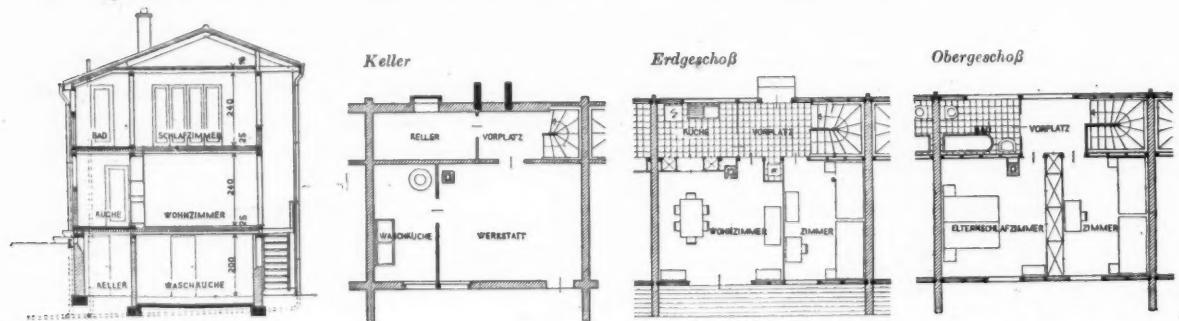


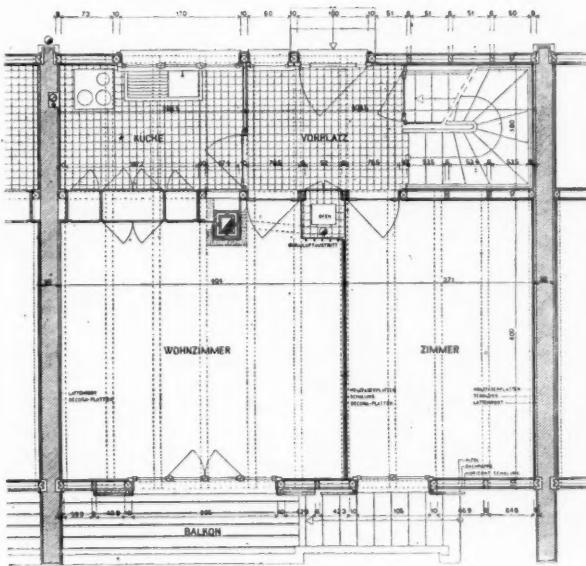
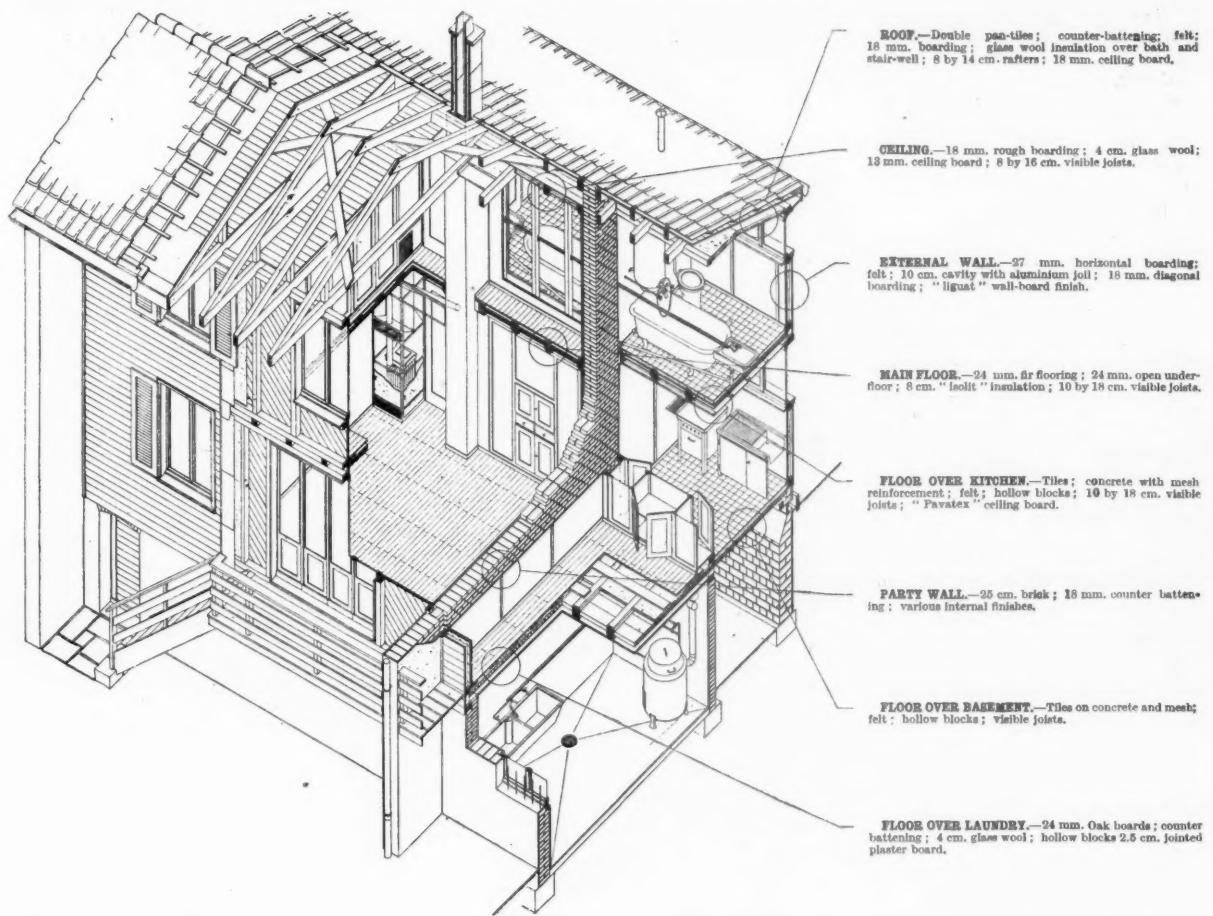


Above. The garden front. In later sections of the settlement the staircase to garden from the living room was omitted.



To left. Four successive stages in the assembly of the pre-fabricated façades.





Contracts were based on plans elaborated to the last detail at a 1 : 10 scale; at the same time detailed plans were worked out for the *in situ* processes. These measures are necessary because the manufacturer has to work to accurate measurement and no correction or adjustment is allowed on the job.

Bockstreich has stimulated Swiss building technique in timber and masonry in war-time conditions. While the simplest materials have been used an architecture has been created which is thoroughly straightforward and at the same time is fresh and alive and is far from the dilettanti eclecticism of falsely conceived "folk" building which has been used so much by Swiss speculative builders.

For this reason alone the Bockstreich scheme is likely to provoke lively discussion by architects and all those interested in housing and building.

The following facts are quoted from the architect's report :

Site and Site Plan.—The settlement is situated east of Schaffhausen at Bockstreich, near to Thayngen, and close to a large industrial centre in which the large majority of the inhabitants are employed. The site slopes to the south-south-east and is ideally oriented. It was necessary to build a new road to open up the site.

The complete settlement will comprise 77 one-family houses in terraces, the lower zone of which is parallel to the slope; the upper ones, on more level ground, are at right-angles to the rest. On the Grünasteig road, on the north-east of the site, is a nursery which serves also as a community centre, and there is also a general store.

The House Type.—Each house includes four rooms on two floors. Under the house is a basement with a workshop leading out to the garden. On the main floor is the main entrance and its balcony, the kitchen of only 4.75 square metres, the living room with its balcony on the garden side and one bedroom. Houses in the first part of the project to be developed were provided with staircases from the living room balcony to the garden, but this was omitted in the later sections, as it was found to result in dirt being carried from the garden into the house.

In the top floor there are two further bedrooms, the bathroom and w.c.

The house is well provided with built-in cupboards, those between the kitchen and living room opening on both sides.

The attic is reached by a trap-door from the terrace. The space above the built-in cupboards provides a gangway leading to the attic.

The heating is by a "Ciney" hot-air plant in the basement, from which ducts lead to all rooms. The kitchen has an electric stove. A 100-litre boiler, also in the basement, provides water for bath and kitchen.

Structure.—The basis of the structure is the prefabricated timber façade element following American and Scandinavian technique. This is fitted into chases in the party-walls, into which the sanitary equipment is fitted at the same time. The water pipes are fixed on the surface. The partition walls are of pre-cut panels of wall board.

Building Finance.—For the execution of the project there was formed a co-operative of the prospective occupants called *Arbeiter-Baugenossenschaft Schaffhausen* (A.B.G.S.), the purpose of which is to provide healthy and cheap dwellings for working-class people with the aid of subsidies granted by the national, canton and local governments. In Schaffhausen there are already several building societies, but these have mainly been established for workers in special industries, such as railway workers. A.B.G.S. is completely independent and is open to all workers. Its establishment has been made possible by the municipal president and national councillor, W. Bringolf, and the present president of the co-operative, H. Huber.

Every tenant is a member of the co-operative and takes at least six shares at 50 francs each, and gives, in addition, a loan to the society of 1,500 francs. The trade unions, the co-operatives of Schaffhausen and other friends of A.B.G.S. take shares and guarantee loans.

Execution of the Programme.—On 1 October 1942 the first works were begun, comprising terraces 1, 2 and 3, totally eighteen houses. These were occupied on 15 January 1943, despite the winter and certain difficulties due to the novelty of the structural methods.

The second stage of fourteen houses (terrace 4-7) was executed between February and May this year. After they had been finished the Society decided to construct a further twenty buildings (terraces 8-12), which were begun at the beginning of July and were planned to be ready by 1 October. The remaining terraces, 13-18, are to be erected eventually.

The cost of construction per house amounts to 23,700 Swiss francs, inclusive of the architects' and all other fees, but exclusive of site cost and site works.

The cost per cubic metre is about 66.50 francs.

The houses are let at monthly tenancies from 80-90 francs.



THE INSTITUTE'S APPEAL

The following is the twenty-fifth list of donations received up to 5 November 1943 in response to the appeal issued to all members and honorary members and students on 16 December 1938.

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Full particulars were published in the issue of the JOURNAL for 6 February 1939 and can be obtained on application to the Secretary, R.I.B.A.

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OBSERVATIONS ON THE NATURAL VENTILATION OF DWELLINGS

By T. BEDFORD, D.Sc., Ph.D., M.I.M.Eng., and C. G. WARNER, Ph.D., B.Sc.
(*Industrial Health Research Board, Medical Research Council*)

WITH THE ASSISTANCE OF F. A. CHRENKO,
(*London School of Hygiene and Tropical Medicine*)

I. INTRODUCTION

During the past century or so much has been written from time to time about the ventilation of dwellings. In spite of this continued interest few measurements of the ventilation in rooms of the size commonly met with in dwelling houses had been made, and in 1937 in order to gain much-needed information, we began a series of observations in houses of various types. The observations had to be discontinued at the outbreak of war, and it has not yet been possible to prepare a full report on them. It is, however, very necessary that in considering plans for post-war reconstruction due attention should be paid to ventilation, and it has been thought that this summary of our results may be of some interest to architects who will be concerned in the planning of post-war houses. The results of the earlier observations made in this investigation have already been published by one of us (Warner, 1940).

In these observations the ventilation rate was estimated by liberating coal-gas into the air of the room and then, by means of a katharometer, measuring the rate of decay of concentration as the gas was removed by ventilation. The instrumental method employed was described by Marley (1935), with the exception that we used coal-gas in place of the hydrogen employed by him. That this method does in fact give an accurate measurement of ventilation, even up to quite high ventilation rates, was confirmed by laboratory experiments in which katharometer estimations were checked against direct air-flow measurements.

II. VENTILATION IN CLOSED ROOMS

Even when a room is closed, i.e., when the door and windows are closed and any flue or air grating is sealed, there is always some ventilation due to infiltration through cracks and joints, and, in less degree, through the fabric of the building. In the absence of exact information the amount of ventilation occurring in such rooms has tended to be over-estimated. Thus, in 1936, the Advisory Committee appointed by the Royal College of Physicians to enquire into "Domestic Heating by Gas" considered from the point of view of Health and Comfort," said that: "In flueless rooms of less than 1,000 cubic feet capacity an air change of more than 1 per hour is commonly found, whereas in larger flueless rooms the air change may fall as low as $\frac{1}{2}$ per hour or less."

During our investigations many determinations of the rate of air change in closed rooms were made, and the results are summarised in Table I. The Table shows for various groups of dwellings the average ventilation rates observed in closed rooms, and

the percentages of observations in which different ventilation rates were found.

In the flats built in 1936, for instance, where all the rooms examined were of less than 1,000 cubic feet capacity, 78 per cent. of the observations showed ventilation rates of less than 1 air change per hour: indeed, in 15 per cent. of the observations the number of air changes per hour was below 0.4. In one of the 1939 blocks of flats the average ventilation rate in the closed rooms was only 0.44 air change per hour, and no observation gave a figure exceeding 1 air change per hour. At the other end of the scale, in the cottages built about 1860, much higher ventilation rates were found. The average for closed rooms was 1.5 air changes per hour, and in 20 per cent. of the observations more than 2 air changes per hour were recorded. The bulk of the observations in all these dwellings were made in rooms little if any larger than 1,000 cubic feet, but even when the old cottages are included the average ventilation rate was only 0.8 air change per hour.

In the London flats built in 1888, the ventilation rate averaged only 0.71 air change per hour, and in only 12 per cent. of the observations did it exceed 1 air change per hour. With this exception there is a broad relationship between the age of the property and the amount of ventilation obtained; in the older dwellings the greater ventilation rates were found. This result is probably to a large extent due to the shrinkage of woodwork. A further factor is the lower permeability of the fabrics in modern buildings due to the use of hard plaster finishes.

Warner (1940) gives some data showing the effects of the fitting of doors on the ventilation. In some of the rooms in the old London cottages mentioned in Table I, estimates were made of the leakage areas around doors and windows: all the rooms were of about 650 cubic feet capacity. In three groups of rooms the average leakage areas were respectively 17, 29 and 79 square inches, and the average ventilation rates for these rooms were 1.3, 1.6 and 2.1 air changes per hour. A substantial amount of leakage may occur around windows which are apparently close-fitting. Thus, in a room in a university building, with well-fitting steel-frame windows, the rate of air change with door and windows closed was 0.36 per hour, but when the cracks round the windows and door were sealed with glued paper the ventilation rate was reduced to 0.08 air change per hour.

When air gratings, flues, or other ventilators are open the wind has an important influence on ventilation, but the effect of wind speed on the ventilation of closed rooms is generally very small and is sometimes undetectable.

TABLE I. FREQUENCY OF OBSERVATION OF VARIOUS VENTILATION RATES IN CLOSED ROOMS

| Description of property | Size of rooms (cu. ft.) | Number of observations | Average number of air changes per hour | Percentage of observations in which number of air changes per hour was | | | |
|-----------------------------|----------------------------|---------------------------|---|---|----------------|-----------------|-----------------|
| | | | | Under 0.4 | 0.4 to 0.99 | 1.00 to 1.99 | 2.0 and over |
| London flats (1939) | | 940 | 0.44 | 37 | 63 | — | — |
| " " (1936) | | 535-938 | 0.69 | 15 | 63 | 22 | — |
| " " (1939) | | 1,070 | 0.69 | 5 | 84 | 11 | — |
| " " (1888) | | 900-1,435 | 0.71 | — | 88 | 12 | — |
| " " cottages (1860) | | 620-1,280 | 1.51 | 2 | 23 | 55 | 20 |
| Other dwellings (1898-1928) | | 410-1,810 | 1.04 | 1 | 59 | 32 | 8 |
| All above | | 358 | 0.80 | 11 | 60 | 23 | 6 |

III. THE EFFECTS OF AIR GRATINGS

The data given in Table I have shown that the ventilation rate in a closed, flueless room is usually small. If a reasonable fresh air supply is to be ensured when the windows of a room are closed, some permanent ventilator is necessary. Such ventilator is generally in the form of either an air grating or a flue.

The air gratings used in dwellings often provide only a small opening for the passage of air, and such small gratings do not as a rule exert any great influence on the ventilation rate. This is shown by observations in two blocks of flats. The rooms of Block A were of 700 cubic feet capacity and those in Block B of 1,165 cubic feet.

TABLE II. EFFECT OF SMALL AIR GRATINGS
ON VENTILATION OF UNHEATED ROOMS

| Flats | Average ventilation rate (air changes per hour) with air grating | | Percentage increase due to open air grating |
|---------|--|-----------|---|
| | Open | Closed | |
| Block A | 0.83 (22) | 0.55 (17) | 51 |
| Block B | 1.04 (10) | 0.71 (12) | 46 |

The rooms in Block A had no flues, but were each provided with one small, louvred ventilator, of which the effective opening area was 10.5 sq. in. Those in Block B had both flues and lattice air gratings. The effective opening area of one of the lattice gratings was only 6 sq. in. The observations in Block B, which are recorded in Table II, were made when the flues were sealed. In all the observations referred to in the Table the windows and doors were closed. With the air gratings open the ventilation was increased by about 50 per cent., but even that increased rate of air change could scarcely be described as representing good ventilation.

The L.C.C. By-laws require that any room used as an office or for habitation, if not ventilated by a ventilation system installed in the building, shall have a flue or other aperture of at least 50 square inches area communicating with the outside air, or if the opening communicates with a lobby or corridor it must be 100 square inches in area.

We have made observations in flueless rooms in a block of L.C.C. flats, where ventilators giving an opening area of 50 square inches have been fixed. The rooms are of 940 cubic feet capacity. Each of them has a louvre in the external surface of the wall with an effective opening area of 76½ sq. in. The aperture at the inner surface of the wall is 9 in. by 9 in., and into this is fixed a sheet metal hopper which serves as a draught deflector and has a total opening area of 50 sq. in. In all the observations to be described the doors and windows were closed. On each day of observation the ventilation rate was measured when the ventilator was completely sealed, and further measurements were made with the hopper fully opened to the maximum of 50 sq. in., or partially closed so as to restrict the opening to a smaller size. In some further trials the hopper was completely removed and the opening area of the louvre in the outer wall surface was varied. For a given size of orifice the ventilation rate was the same, whether the restriction of the opening was in the inner or the outer surface of the wall.

During each set of experiments the strength and direction of the wind were observed. The wind speed determinations were made at a height of about four feet from the ground in the middle of the roadway between the blocks of flats. The figures thus obtained are usually substantially lower than those recorded at the same time in exposed positions by the Meteorological Office. In a densely built-up area the buildings shield each other and break down the force of the wind at street level. Through the courtesy of the Director of the Meteorological Office we have been given data of wind speeds recorded at Kew for comparison with our own observations made in populous areas in London. Such a comparison shows that, on the whole, when the wind speed recorded at Kew was 5 miles per hour the speed in London streets was only 1.8 m.p.h., and when the Kew value was 20 m.p.h. our

observations averaged 4.1 m.p.h. Probably because of the influence of variations in wind direction on the shielding effects of buildings the correlation between the Kew figures and our own is not a very close one.

For a consideration of the effects of wind on the ventilation afforded by air gratings, the air speed recorded on the site at street level may be a more appropriate figure to use than the Kew value, and in this summary of our results we have used the wind speeds ascertained by us.

It is to be expected that with a wind of given strength the ventilation will be greater with the wind blowing directly on to the air grating than when the grating is on the leeward side of the building. The influence of wind direction as well as wind force is illustrated by our data—see Figs. 1 and 2, next page.

From the 220 observations made with the wall ventilators open, Figures 1 and 2 have been constructed. For a wind speed of 2.5 m.p.h., Fig. 1 shows the relation between the ventilation rate and the size of the ventilator, (a) when the wind was blowing directly on to the ventilator, i.e., at an angle of 90 deg. with the wall; (b) when the wind direction made an angle of 45 deg. with the wall; and (c) when the wind direction was parallel with the wall in which the ventilator was fixed. When the grating was on the leeward side of the building the ventilation rate was the same as when the wind blew parallel with the grating. It will be noticed that for any wind direction the relation between the ventilation rate and the size of grating is shown as a straight line. It appears that up to 50 sq. in., at any rate, an increase in the size of the ventilator is associated with a proportionate increase in the ventilation rate. Indeed, in some of the observations the hopper on the internal wall surface was removed and the ventilating opening of 76½ sq. in. provided by the external louvre was utilised, and this increase in the size of the ventilator gave a proportionate increase in the ventilation rate. When the wind speed was 2.5 m.p.h., and the wind blew directly on to the air grating, the ventilation rate was only 0.95 air change per hour with a 10 sq. in. opening, but when the opening was increased to 50 sq. in. the rate increased to 3 air changes per hour. When the wind direction made an angle of 45 deg. with the wall the ventilation rate was 0.7 air change per hour for an opening of 10 sq. in., and 1.7 air changes when the opening was increased to 50 sq. in. With the wind parallel with the external wall the ventilation rate was 0.6 air change per hour with an opening of 10 sq. in., and this rate was doubled when the opening was increased to 50 sq. in. The average ventilation rate in these rooms when the ventilator was closed was slightly more than 0.4 air change per hour.

Fig. 2 shows the effect of wind speed on the ventilation rate when the direction of the wind made an angle of 45 deg. with the air grating. With the 50 sq. in. opening the ventilation rate was 3 air changes per hour with a wind speed of 5 m.p.h., and barely 1 air change per hour with a wind of only 1 m.p.h. When the ventilator opening was reduced to 10 sq. in. the ventilation rates were about 1 and ½ air changes per hour for winds of 5 and 1 m.p.h. respectively. Wind speed had little influence on the ventilation when the air grating was closed: an increase of velocity of from 1 to 5 m.p.h. only increased the ventilation rate from about 0.4 to 0.5 air change per hour.

The ventilation rates with an opening area of 10 sq. in. shown in Figs. 1 and 2 are in close accord with the other figures for small air gratings previously recorded in Table II.

It has been said to us that the 50 sq. in. ventilator required by the L.C.C. By-laws in flueless rooms must give rise to objectionable draughts at times. Our observations give no support to that suggestion. During every determination of the ventilation rate measurements were made of the speed of air movement at head level in the middle of the room. The air velocities were always low, and the highest velocity observed with the 50 sq. in. opening was 12 ft. per minute—a low value. When the hopper was removed, and the full 76½ sq. in. of external louvre opening was utilised, similar velocities were observed. In no single observation was the rate of air movement such as would be expected to provoke complaints of draught, even from sensitive persons.

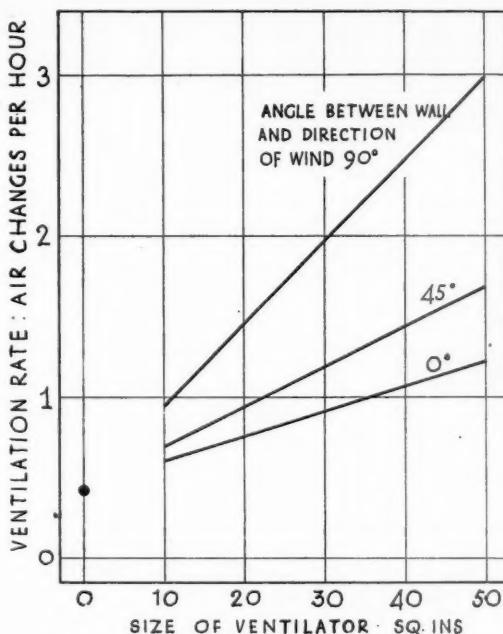


FIG. 1. Effect of Size of Wall Ventilator and of Wind Direction on Ventilation Rate. Wind Speed of 2.5 m.p.h. Measured Near Ground Level.

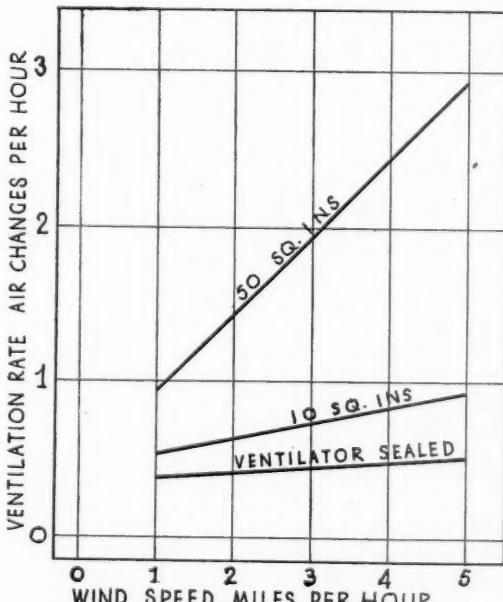


FIG. 2. Effect of Size of Wall Ventilator and of Wind Speed on Ventilation Rate. Wind Blowing at Angle of 45 Deg. with Wall.

IV. THE EFFECTS OF UNHEATED FLUES

1. Ventilation with the Standard Flue

Even when there is no fire at its base an ordinary flue is a valuable ventilator. Table III shows the average rates of air change observed in some London flats in rooms provided with 9 in. by 9 in. flues, and register openings of 53 sq. in. area. The ventilation rate when the flue was open was nearly treble that found when the flue was closed. The averages quoted in the Table were obtained in paired comparisons, i.e., during each observation period determinations were made (a) with the flue open, and (b) with the flue closed, so that the differences between the ventilation rates for the two sets of observation were not due to differences in wind strength; the average wind speed was the same for the two groups of data.

TABLE III. VENTILATION WITH STANDARD 9 IN. x 9 IN. FLUE

| Conditions | Average ventilation rates as | |
|----------------|------------------------------|----------------------------------|
| | Air changes per hour | Volume of air (cu. ft.) per hour |
| Flue closed .. | 0.72 | 820 |
| Flue open .. | 2.06 | 2,300 |

As the wind passes over a chimney it aspirates air up the flue, and as the wind speed increases its ventilating effect is enhanced. This is illustrated by observations made in another block of flats, the results of which are given in Table IV. The flues were 9 in. by 9 in. in cross-section, with throat apertures of 51 sq. in. In all observations doors and windows were closed.

TABLE IV. EFFECT OF WIND SPEED ON VENTILATION THROUGH UNHEATED 9 IN. x 9 IN. FLUE

| Wind speed, m.p.h. (M.O. value) | Number of observa- tions | Average ventilation rate per hour | |
|------------------------------------|--------------------------------|--------------------------------------|----------------------------|
| | | Number of air changes | Volume of air (cu. ft.) |
| 7 to 10 | 8.6 | 10 | 1.82 |
| 11 to 14 | 12.8 | 19 | 2.01 |
| 15 to 18 | 15.4 | 10 | 2.92 |
| 19 to 24 | 21.7 | 6 | 3.53 |
| Mean with flue sealed | | 0.69 | 738 |

It will be noted that in tabulating these observations we have used the Meteorological Office figures for wind speeds. Since the principal influence of the wind in these observations was its aspirating effect at the chimney top, wind speeds observed near ground level might have been misleading, owing to the sheltering influence of buildings. It should perhaps be remarked that the flats in question were five-storey buildings on an exposed site.

On the whole, an increase of 10 m.p.h. in the wind speed was accompanied by an increase of about $1\frac{1}{2}$ air changes per hour. Even at the lower wind speeds the ventilation with the flue open was much more than when the flue was sealed, and with a wind of 20 m.p.h. it was about 5 times the closed room value.

2. Ventilation with Flue Opening Constricted

The observations just described were made with 9 in. by 9 in. flues with throat apertures of the usual size of about 50 sq. in. If the size of that opening is diminished the amount of ventilation is reduced. Experiments to determine the extent of that reduction were carried out in two rooms (A and B), and the results are shown in Fig. 3.

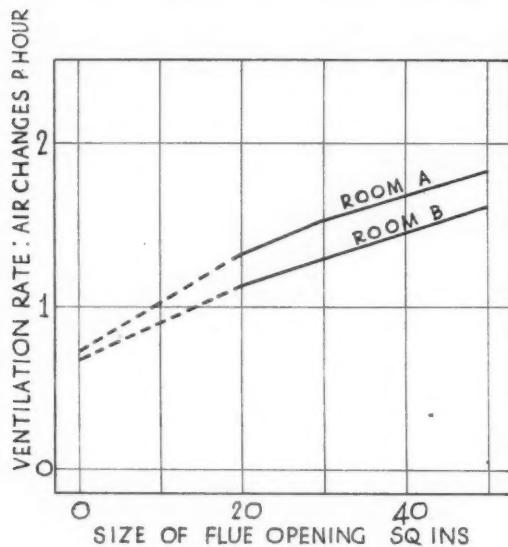


FIG. 3. The Effect of Constriction of the Flue Throat on Ventilation.

Observations were made with the throat of 50 sq. in. fully opened, with reduced throat apertures of 30 sq. in. and 20 sq. in., and with the flue sealed. In all cases doors and windows were shut. The volume of Room A was 1,725 cubic feet and that of Room B 1,420 cubic feet. Ventilation rates observed in Room A, whether expressed in terms of air changes per hour or of the volume of fresh air entering, were higher than those found in Room B, probably because of differences in outside wind speed. During the observations in Room A the wind velocity, measured near ground level, averaged 5.7 m.p.h., and it was only 2.1 m.p.h. while the observations in Room B were in progress. The reduction of the flue aperture from 50 to 30, and then to 20, sq. in., was accompanied by a diminution in the ventilation rate to about 30 per cent. below that occurring when the throat was fully opened.

3. Ventilation with Flues of Small Cross-Section

It is sometimes urged, that in the interests of fuel economy, flues of smaller cross-section than the customary 81 sq. in. should be used. When smaller flues are being considered the effects of such reduction on the ventilation of unheated rooms should be borne in mind. One of us (Warner, 1940) has already recorded observations bearing on this point. The measurements were made in rooms of about 900 cubic feet capacity, fitted with gas fires which were connected to flue pipes of 4 in. diameter, or 12.6 sq. in. cross-section. In the closed rooms, when the flues were sealed, the average ventilation rate was 0.84 air change per hour, and when the flues were open the average was only 1.17 air changes. In rooms of 900 to 1,435 cubic feet capacity in a nearby building the flues were of standard size with throat apertures of 53 sq. in., and observations in these rooms have already been recorded in Table III. When the flues were sealed the average ventilation rate was 0.72 air change per hour, and with flues open the average rose to 2.06 air changes. The average wind speeds were very similar in the two sets of observations but the average for the former set was slightly the higher. The flue of 12.6 sq. in. cross-section only increased the ventilation rate, expressed as air changes per hour, by barely 40 per cent. above the closed room value, whereas the standard flue nearly trebled it.

4. The Effect of Flue Height on the Ventilation of Unheated Rooms

Advantage was taken of an opportunity to determine the effect of flue height on ventilation. The measurements were made in

similar rooms on various floors of a five-storey block of flats. On each day of observation measurements were made on the ground, second, third, and fourth floors, and on a few occasions also on the first floor. Thus the observations in the different rooms were made with substantially the same average outside wind speed.

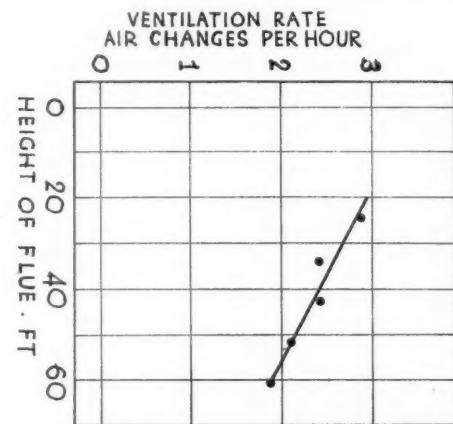


FIG. 4. Ventilation in Relation to Height of Unheated Flue.

The average ventilation rates are shown in Fig. 4. Increase in the height of the flue caused greater resistance to air flow, and on the whole an increase of 10 feet in flue height was accompanied by a reduction of 0.26 air change per hour. The rooms were of 1,070 cu. ft. capacity, so that this reduction of 0.26 air change per hour meant a decline of 278 cu. ft. per hour in the volume of fresh air entering the room.

V. VENTILATION WITH HEATED FLUES

1. With Unrestricted Flues

A few measurements were made of the ventilation in a room of 1,420 cu. ft. capacity in which a coal fire was alight. When the door and windows were closed and a fire was burning in the grate the average ventilation rate was 4.5 air changes per hour; when there was no fire and the flue was cold the ventilation rate with the flue open was 1.6 air changes per hour, and when the flue was sealed 0.6 air change. Observations made at the Building Research Station (1939) with a coal fire burning also showed the rate of ventilation to be 4.5 air changes per hour, and the rate observed when the flue was open but unheated was 1.7 air changes per hour.

Some observations were made in a small room of 705 cu. ft. capacity, in which there was a gas fire. The fire was placed just in front of the fireplace, its vent pipe was inserted into the flue, but the flue opening was not restricted. The ventilation rate was 2.8 air changes per hour when the fire was not lit, and 5.1 air changes when it was.

2. With Restricted Flues

The effects of restriction of the flue on the ventilation of unheated rooms have already been shown. Any such restriction also hinders ventilation when a fire is burning at the base of the flue. Thus, Dufton (1942) records that when similar temperatures were maintained in a room heated (a) by an open fire, and (b) with an experimental fire employing an adaptation of the *cheminée de Nancy*, the number of air changes per hour observed was 3.9 in the former case and 1.5 in the latter. The fuel consumption of the ordinary fire was 3 pounds of coal per hour, and that of the experimental fire 2 pounds per hour. The substantial reduction in the rate of air flow up the chimney was undoubtedly due mainly to the restriction of the flue caused by the fitting of the tapering metal trumpet over the experimental fire, for the flue opening was probably restricted to about 15 sq. in.

Other examples of the effect of restriction of the flue are given in a report from the Building Research Station (1939). When an anthracite stove was fitted into the fireplace the ventilation rate was only 0.7 air change per hour, whereas it was 1.7 air changes without heating when the flue was not restricted. When a gas fire was fitted into the fireplace and the opening thereby restricted the ventilation rate with the fire alight was 3.1 air changes per hour, as compared with the 5.1 air changes found by us with a gas fire fitted so that the flue was not restricted.

VI. VENTILATION WITH OPEN WINDOWS

Little need be said about ventilation with open windows. If liberal window openings are provided any reasonable amount of ventilation can generally be obtained. The amount of ventilation provided by a given area of window opening will clearly depend on the strength and direction of the wind. It also depends on the disposition of the windows. If windows on opposite sides of the room are open through currents are set up and the air of the room is thoroughly scavenged. In experimental rooms we have obtained as many as 30 air changes per hour by means of such cross-ventilation.

PLANNING AND THE ARCHITECTURAL PROFESSION IN CANADA

The following Memorandum on Post-War Planning was submitted last May to the Prime Minister of Canada by Mr. Gordon McLeod Pitts, President of the Royal Architectural Institute of Canada.

The short memorandum which we print here was accompanied by a more extensive report, *Planning the Canada of To-morrow: the Architects' Contribution*, by Mr. Pitts, which dealt with the qualifications and potential services of Canadian architects, organised in their Royal Institute. The R.A.I.C. has chartered associations in all the nine Canadian provinces excepting only Prince Edward Island, which possess certain exclusive rights for their members as architects.

After this brief description of the R.A.I.C. Mr. Pitts discusses first, "planning" as a science peculiar to the training and practice of the Architect, and next the architect's contributions to the general reconstruction discussion in Canada, paying particular attention to the economic issues as they affect building development. A list of the eighteen most important elements in the economic programme is given.

An interesting section of the report analyses the low-wage groups in Canada and shows the estimated monthly amounts from family incomes available for the provision of houses—the summary shows that 62 per cent. of the Canadian population earned less than \$1,600,000 and that the provision of houses for this large part of the Canadian people "is a Canadian problem which private capital alone, has so far failed to solve." The ideal of "each man a home owner" is stated and the need for government subsidies to attain this.

"From all of the above you will gather that a post-war reconstruction problem is not one to be planned and solved on the day that peace is declared. It is a highly involved technical study. . . . In its solution the architectural profession can play a very important part."

THE MEMORANDUM ON POST-WAR PLANNING

The Royal Architectural Institute of Canada and its Component Associations throughout Canada have had under discussion and study the desirability of setting up at an early date a Central Planning Authority to secure consistency and continuity in the framing and execution of a national policy, compatible with provincial rights and privileges, in respect to:

- A. Use and development of land.
- B. Establishing conditions for development of construction programmes.
- C. Assisting provinces, municipalities and private interests in acquisition of land, planning, development or re-development.
- D. Encouraging the creation of provincial, regional and local planning boards (or commissions) for the establishment of master plans.

In the ordinary living room the ventilating effect of an open window is much modified by the presence or absence of an open flue. Thus in one room, when the sash window was open to the extent of 2 inches the ventilation rate was 1.8 air changes per hour when the flue was sealed. The flue was then opened, the window opening remaining unaltered, and the ventilation rate increased to 5.4 air changes per hour. In another room under similar conditions the corresponding ventilation rates were 1.9 and 4.3 air changes per hour.

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E. Co-operating with all Governmental authorities in regulating volume and distribution of public construction projects, financed by public funds, undertaken to meet social and economic needs; and rehabilitation measures.

The Royal Architectural Institute of Canada is of the opinion that the Central Planning Authority should be set up with the least possible delay with a view to its being in a position to act promptly upon the conclusions of the various non-governmental committees engaged throughout Canada on post-war community planning and physical reconstruction, the establishment of a national policy, and the prompt initiation of projects when the war ends.

It is also the opinion of the Institute that the Central Authority on Post-war Planning should be a new department of the Federal Government under its own minister. Members of its governing council should be chosen by the Dominion Government for their outstanding ability and leadership from the architectural, engineering, legal and notarial professions; from production and construction industries; from financial institutions and lending companies, with which might be coupled the field of economics; from social service, labour and agricultural organisations.

The Central Planning Authority, as an organisation, may be composed of seven divisions, each under the management of a chairman selected from the governing council, each chairman being an authority in his own field.

The following outline of divisions is submitted for consideration. It is merely tentative and suggestive of its scope.

- I. Executive Section.
- II. Research Section.
- III. Public Information and Education Section.
- IV. Planning Section.
- V. Legislative Section.
- VI. Finance Section.
- VII. Operations Section.

The Institute in the course of its deliberations has followed with interest the steps taken by the British Government, following the recommendations of the Scott and Uthwatt reports, which have led to the establishment of a Ministry of Town and Country Planning for England and Wales, to direct the machinery for land control and administration. The Institute also appreciates the valuable work that is being done by the James Committee on Reconstruction which with its ramifications is empowered to investigate all phases of post-war conditions and, further, notes with interest the setting up of the Clark Advisory Committee on Economic Policy. They will all undoubtedly lead to important decisions and results in general planning for post-war reconstruction, and while we realise that such planning as comes within the scope of a Central Planning Authority, as herein recommended, is but a part of the whole unfolding mosaic, it is nevertheless a very important part.

The above suggestion is submitted by the Royal Architectural Institute of Canada as a token of its interest and earnest desire to co-operate in formulating at least a part of a National Reconstruction Programme.

HAROLD CHALTON BRADSHAW (F)

A Memoir by Prof. C. H. Reilly (F)

Harold Bradshaw, born fifty years ago (Feb. 15, 1893), officially entered the Liverpool School of Architecture as a student in October, 1911. He had, however, been there two years before that. When I could get no entrance scholarships allotted to the little School of Architecture of those days, with its 20 students, its two-year course for a certificate and its three for a Bachelor of Arts degree, for either of which the only recognition was a year off their articles by the Liverpool architects, I persuaded the University to let me engage as a laboratory assistant, to help with the slides, look after the little library and do any odd job, the most promising boy I could find in the big Liverpool secondary schools, who, in addition to a little pocket money would, after two years, as a reward, have a free passage through the School. Bradshaw was the first of these, now a long line with many well-known names on it, one, the first architect V.C. in the last war. To find him I consulted the headmasters of the various schools, and eventually, at the Holt School, one of the biggest, found Bradshaw, then about 16, designing and painting the scenery for the school play. As he failed in mathematics in his matriculation examination, the headmaster wanted me to take someone else. However, I did not worry about that. He was what I wanted, and obviously a clever fellow. He came, too, from a clever family. A brother of his, killed in the last war, was placed in the first division of the first class of the Mathematical Tripos at Cambridge. It is a curious instance of how family talent can be divided.

At the school Bradshaw at once took full advantage of his position with all he could see, hear and read. Long before he was officially a student he was making brilliant sketch designs. Adshead was there, in the Chair of Civic Design just founded, and starting a great tradition in draughtsmanship and rendering of which Bradshaw was an apt student. During the two years of his official course he carried off the Holt travelling scholarship, our only one, and the Lever Prize, our only prize, as well as getting an honorary mention in the Soane Medallion competition. At the end of his two years in 1913 he entered for the Rome Scholarship, the first time it was offered, and won it with a magnificent set of drawings for a civic centre. I was not on the jury, of course, but being on the Faculty could sit and watch with suppressed excitement. Bradshaw's drawings were a great surprise to everyone, even then when draughtsmanship counted for more than it does to-day. There is still on the walls of the Liverpool School a grand double elephant water colour of the Mersey and the Pier-head, the sort of thing he made with such seeming ease, showing the strange collection of buildings on the Liverpool bank reduced to some sort of order, a sketch design subject, I believe, elaborated over a week-end.

For his Rome thesis Bradshaw made a restoration of the little Roman town of Praeneste in another brilliant set of drawings for which he afterwards got a Medaille in the Paris Salon of 1920. These were published in the Papers of the School at Rome, together with his very scholarly dissertation in which he was confessedly helped by a Gilchrist Archaeological Scholar in the British School at the time, Miss Mary Taylor, the daughter of a Birmingham professor, whom he married in 1918, the first of three happy Rome School marriages of Liverpool scholars of which I have evidence.

This Praeneste dissertation was the earliest indication I recall of a new distinction, Bradshaw's power to express himself in words as well as in drawings, a power he developed still further when he came to work under the late Lord Crawford as Secretary to the Royal Fine Art Commission. I remember his telling me how much he owed to him in that respect. He had grown older then, of course, and had had a long war experience breaking into his time at Rome. He fought in Belgium, France and Italy, ending as a Captain in the Royal Engineers with a Croce de Guerra.

His position as the first Secretary to the Royal Fine Arts Commission—he seemed destined to these first positions—he gained against a considerable field. I remember Lord Crawford considered a brother of mine, a High Court Judge in India at the time, and there were many more. Having gained this position he honourably made it his life's work, but of that work I cannot speak intimately, not being a member of the Commission. The President of the Royal Academy has, however, written to *The Times* with a note of obviously very sincere appreciation of all he did there. I feel sure it was a fine civilising influence he had both by the public buildings and monuments he helped to save us from and by those he improved. From the architectural student, the great perspective draughtsman with works in most of the post-war summer Exhibitions at the Academy and the young architect, he was quickly growing into the diplomatist and civil servant, with a polish of manner and phrase which made him an ornament at the Athenaeum or wherever he went. I well remember when I was myself elected to that club the pleasure it gave me to find him there, already on the Committee, the friend it seemed of Cabinet Ministers and any person of distinction the membership included.

In his later years, if years under fifty can be so called, he established himself as a *raconteur*, and as a wit second only to Sir Edwin Lutyens himself, yet in his stories I never remember his saying anything unfair or cruel. Of course, he laughed at his old professor as every independently-minded student should, but not unkindly. The result of all this was few men can have had more friends. Then suddenly, when most needed, when equipped with experience as no other man for the work and with a flood of it ahead of him, he is cast off, actually dying during a meeting of his Commission. For him it may be the grandest thing of all—I like to think it is—but for his wife, his three fine boys of whom he was so proud, two already serving, one a night-fighter, and for all his friends it came as a sudden, an unbelievable blow.

The following are his chief buildings, necessarily a short list, as his life was given to helping and restraining other people with theirs.

Three small Banks which he did for Lloyds when that great Bank stepped into the breach and gave commissions to returning Rome scholars after the Government, in spite of French precedents, failed to offer anything but a draughtsman's seat in the Office of Works. Soon came the Guards' Memorial, won in open competition and carried out with Gilbert Ledward, the sculptor. It was one of the first of the severer type of War Memorial emphasising the solemnity of war rather than its glory. It was clearly designed to be seen from under the Horse Guards arch and is in my opinion a very restrained and dignified monument with fine lettering and detail. The Memorials to the Missing at Cambrai and Ploegsteert Wood are also severe, good classical monuments. At the opposite extreme is the Tudor "French House," as it is called at Lympne, a restoration or a *tour-de-force* in half timber work. There is his fine dining hall to the British School at Rome, a farm house called Burningfold and other houses, all well done in their several ways. He could do or say nothing ugly or misplaced.

Bradshaw's appointments in addition to his great Secretarship are a lectureship held for a short time at the Bartlett School immediately after his return from Rome, then his lectureship in History at the Architectural Association School, held for many years, as were his various examinerships at the R.I.B.A. For several years until the outbreak of war he was lecturer in architecture at the Royal Academy Schools. At Liverpool he was external examiner from 1929-31. He was honorary secretary to the Faculty of Architecture, a member of the Council and of the Executive Committee of the British School at Rome; he was a member of the Advisory Committee of the Imperial Gallery of Art and for many years on the Council of the R.I.B.A. and of the Architectural Association, and, since its formation, a member of the Council and Board of Education of the Architects' Registration Council. He received his honorary degree at Liverpool in 1930 and his C.B.E. in 1935.

BOOKS FOR PRISONERS OF WAR

Since the start of the R.I.B.A. Prisoners of War book scheme many letters have arrived from prisoners expressing gratitude for the books that have been sent. At the end of this note are extracts from some of them.

Permission has now been obtained from the Censor allowing the despatch of the R.I.B.A. JOURNAL to Germany. Previously only the *Architectural Review* had been allowed, and as copies of this magazine available for prisoners were very limited, it resulted in most of the camps being without any kind of current architectural or building news. Now, however, starting with the July issue of the JOURNAL, some eighty copies are sent out each month to prison camps. These go to all members, students and probationers known to the Institute, and, in addition, to the librarians of all the larger German camps. They are marked

with the special Red Cross stamp, which insures their speedy transit.

Through the further generosity of The N.F.B.T.O. and Mr. Coppock, a special reserve of architectural, town planning, surveying and building books is being created at the H.Q. of the International Red Cross at Geneva. About £250 has been allocated for this purpose and the selection of books is now complete. The matter has been arranged through the Educational Books Section of the British Red Cross at Oxford.

It is hoped that, should transit of books direct from England become difficult, it will then be possible to have them despatched direct to the prison camps from the store in Geneva. This, of course, is the method adopted by the Red Cross for a large proportion of their varied supplies at the present time.

Letters from the Camps

From Lt. G. Marfell, Campo. P.G. 35, P.M. 3400 (pre-war Secretary of the R.I.B.A. Exhibition Committee)

Dated 25 May 1943.

"You will be glad to hear that all the building and architectural instructional books, *i.e.* lots 103 to 113 inclusive, have now arrived safely. We are very delighted indeed to have them. Please convey our very special thanks to the sponsors of the scheme and to those who have collected them together. They have been shared amongst and made available to architects, surveyors and builders, about twenty in all. In addition, we have formed a special architectural and town planning library with books of more general interest, which have been sent to me or F/O. Downie at one time or another. This has proved extremely popular. If we should be unfortunate enough to be in need of intellectual succour longer than we anticipate, I would suggest that the next group of books should consist entirely of those of general character, since we have a magnificent lay public. F/O. Downie has given one or two lectures, and to stimulate interest a miniature exhibition was staged based on Ralph Tubbs' *Living in Cities*. I expect similar success has been obtained at other camps. However, without a committee it is not possible to obtain quite the right animosity which augurs so well for exhibitions as a rule. . . ."

From Lt. J. Kennedy Hawkes, R.A., Oflag VII B, P.M. 3583:

to his father

"Our P.O.W. newspaper recently reprinted a passage from the *Manchester Guardian* of 11 August giving the R.I.B.A. results: all passed—much celebration. The classes are well away for the next exam. which the R.I.B.A. are sending out immediately, but we hope it will be delayed for a few months. There are 4 candidates for the Inter. and 5 for the Final, including 3 recently successful Inter. candidates. Forty books were recently released by the Censor (from the R.I.B.A.). They are very well chosen, and all here are very enthusiastic and grateful."

From Sgt. R. Davies, Camp Leader, B.A.B. 21 Blechhammer

Dated 28 June 1943.

"Many thanks for your letter dated 22 May 1943 and for the seventy-three books which have been despatched to this Camp under your splendid Prisoner-of-War Scheme. Please convey the very best thanks of the men here to the N.F.B.T.O. and the R.I.B.A. for their kind, far-seeing generosity. Scores of men here were employed in the building trades in peace time. . . . Trade lectures are given by those among us who have had a wide experience, and these lectures amplify the daily practical work. Your timely offer will stimulate additional interest in the men, as well as giving them definite objectives, combined with a sense of confidence on the resumption of their civil trades when peace comes. With renewed thanks for your co-operation. . . ."

From R/Sgt. Maj. T. Hegarty, Camp Leader, P.G. 59, Italy

Dated 26 July 1943.

"I note with great pleasure the information of your kind gift of twenty books sent to this camp on 23 April 1943. . . . We are making the fullest possible use of these books at present. . . . All members of

the camp interested in building and its kindred trades are divided into groups under one responsible N.C.O., who is in charge of all literature. They have the use of the recreation room for ten hours a week. Practical work is out of the question. Due to recent changes in the camp strength the groups have become somewhat depleted, but those remaining are continuing their studies. I would be grateful if you would accept the thanks of members of P.G. 59 and also pass on our thanks to the National Federation of Building Trade Operatives in recognition of their generous co-operation in your excellent scheme. Thanking you again"

From S/Ldr. M. Kane, Senior British Officer, Stalag Luft III.

Dated 29 July 1943.

"I am happy to inform you that a number of books have now been received. . . . I should like to take this opportunity of thanking you for the help you are giving to our architects. They have already derived considerable benefit from your efforts. Moreover, those of us who have a merely amateur interest in architecture and town planning have found much food for thought and discussion. . . ."

From Stanley Symons, B.A.B. 21, Blechhammer

Dated 11 September 1943.

"I have received your July letter and am pleased to hear that there are books on the way to me. They will be of great value to me in my studies, and I wish to thank you for the help that is being given to me and fellow prisoner students."

From F/O. S. D. Read, Stalag Luft III

Dated 3 September 1943.

"Received your letter of 30 June and the parcel of seven books which are very welcome and exactly what I require. Will many thanks for a splendid and immediate response."

From Lt. T. H. Scott, Australian Air Force

Dated 27 August 1943.

"With much gratitude I wish to thank those concerned for the most helpful way in which the organisation is working, also to state that the text-books received (so far—nine) are proving very useful, not only in helping to pass away a dreary existence, but in preparing myself for exams. At times the camp resembles one huge study circle, small groups tucked away in any possible quiet corner, wading through a variety of subjects. Unfortunately, at present there is no one working on the architectural side of the building trade here for me to co-opt. Hence my bagging a window-ledge in the washhouse. Again appreciative thanks. Yours 'on top'"

From Cpl. Twist and Pte. Bown, Stalag XX B

Dated 28 August 1943.

"We have just received your letter of 13 July and greatly appreciate the gift of architectural books which are on the way out to us. Although study time is very limited, the books will enable us to keep in touch with the trend of modern architecture, from which we have been so long exiled. We wish to thank the National Federation of Building Trades Operatives and all who have helped to make the scheme possible." (Cpl. Twist is studying for his final.)

From William Lamb, Marlag und Milag Nord (Milag)*Dated 27 August 1943.*

"I am attending advanced classes here under Mr. Mackie, and he has recommended me to write for the following books. . . . He also wishes to convey his sincere thanks for the help you have rendered him and all his pupils here, and adds that your efforts at home will have good results in conveying valuable knowledge to men here and they will be better prepared to take up positions of trust on their release. . . ."

From A. Davies, Campo. P.G. 70, P.M. 3300, Italy*Dated 8 June 1943.*

"I thank you on behalf of the prisoners-of-war at Camp 70 for the books which the above Institute have sent out to us. They will be very, very useful when they arrive. We have classes covering a wide variety of subjects and text-books are scarce. Classes are run by competent instructors under the supervision of the educational instructor. The camp library is run entirely separate from the educational classes, though the Librarian takes responsibility of issuing text-books to class instructors. If you address books to the camp leader you may be assured that they will reach the right people. Thanking you for your kindness."

From Lt. A. Samuels, Campo. P.G. 78, P.M. 3300*Received August 1943.*

"Many thanks for your interesting letter and for sending off books to enable me to study. With reference to your book scheme through the Building Operatives, we have in this camp about eight officers who have interests in the building trades. So we run a discussion circle, talking on different subjects, especially as the camp consists of officers from Australia, Canada, New Zealand and South Africa. Points of view become extremely interesting both in the understanding of construction in these countries, prices, etc., as against our own. We have discussed your scheme, and perhaps through your good offices you could arrange to send us books on the following subjects: Post-war construction, town planning, acoustics, road construction, architectural professional practice, building law, reinforced concrete, housing, building materials or any books which would benefit us both here and in later work. Most of us are badly out of practice, having been away from the profession for over three years. Once again may we thank you for putting this scheme before us, but we all hope we will be home before the books reach us!"

From L/Cpl. W. J. Witham, Campo. P.G. 70, P.M. 3300*Dated 29 June 1943.*

"I am extremely grateful for your letter of 6 May and eagerly await the books. We have various classes covering building subjects and a number of text-books, but if it is not asking too much could you send me a good one on the preparation and finishing of perspectives?"

From Sapper N. F. Kingham, Campo. P.G. 78, P.M. 3300*Received July 1943.*

"I wish to take this opportunity to thank you for sending the books to our camp. At the moment they are at Rome for censorship, but we hope to have them back soon. Your efforts to help us are most appreciated and I congratulate you on the excellent results."

From The Camp Leader, Campo. P.G. 66, P.M. 3400*Dated May 3 1943.*

"I am in receipt of six instructional books, for which receipt is attached. On behalf of my fellow prisoners in this camp, will you please convey to the donors sincere thanks for this splendid gift, which is so much appreciated. Thanking you. . . ."

From the Education Officer—Squadron Leader M. Kane—and the Senior British Officer—Group Captain R. Kennett (Stalag Luft III)*Dated 11 June 1943.*

"Thank you very much indeed for your letter dated 7 May 1943, in which you notify us of the despatch of four parcels of books on 20 March 1943 and a further parcel on 10 April 1943. We are very interested and gratified to learn that the Royal Institute of British Architects and the National Federation of Building Trade Operatives are so active in furthering the well-being of prisoners of war. These books have not yet arrived, but when they do they will be placed at the immediate disposal of those who are interested. With very many thanks. . . ."

From Douglas Mackie, Marlag und Milag Nord (Milag)*Dated 6 July 1943.*

"Thanks very much for letter received, and the books will be of great value when they arrive. My classes here are growing every week and I am occupied practically all the time. I prepare skilled men for City and Guilds and Clerk of Works exams. I also have classes for young men who intend completing training when they get home.

The men I am preparing for training in various trades are very keen. . . . Please convey to members of the Institute my best thanks and wishes, and I hope to give them my experiences soon. . . ."

From Capt. Wilson, D.S.O. (R.N.), Marlag und Milag Nord (Marlag—Officers)*Dated 16 July 1943.*

"Very many thanks for your letter of 11 May 1943. I will acquaint you as soon as any of these books arrive. On behalf of all those in the camp I should like to take this opportunity to thank the Royal Institute of Architects and the National Federation of Building Trade Operatives very much indeed for the generous gift, and I can assure you that the books will be much appreciated."

From the School Welfare Officer (W. John), Marlag und Milag Nord (Milag)*Dated 15 July 1943.*

"I was exceedingly pleased to receive your letter of 11 May 1943 and to learn that you have already despatched eight parcels of books for the use of men in this camp, and we anxiously await their arrival. On 25 May I wrote to you asking you to forward some books for the use of our building construction and clerk of works classes, and I sincerely hope that you have already received that letter and that you can see your way clear to grant our request. Sending our very many thanks and expressing our everlasting gratitude to you and your Society for the interest you are taking in our welfare. . . ."

(N.B.—This letter crossed one from the R.I.B.A. telling them that a further 112 books had been sent in answer to this request.)

From Education Officer (H. E. Morris), Office of Chief Man of Confidence, Stalag XVIII A*Received 10 August 1943.*

"I have to thank you very sincerely for your letter of 11 May 1943, which I have just received. I can assure you we look eagerly forward to the arrival of the parcels of books which you have so kindly sent us. In accordance with your kind invitation, I have had a chat with one or two men in the lager who are interested and engaged in the architectural or constructional professions, and they have suggested that I might ask for the following books to be sent. . . . This is a somewhat formidable list, I must confess, and you would be forgiven for thinking me the modern counterpart of Oliver Twist—a very presumptuous one at that, but I feel quite certain that the greater number of these will be already included in the parcels forwarded, and our demand will not be so large after all. In conclusion I would like to voice the expression of thanks of all the men of Stalag XVIII A for the generosity of the National Federation of Building Trade Operatives, and to say how glad we are to have come into contact with yet another organisation which has the welfare of prisoners of war so much at heart. I sincerely hope that we may hear from you from time to time: it is a delightful privilege. . . ."

(N.B.—Nearly all the long list of books had already been selected and sent.)
(Taking the Intermediate Examination, Autumn 1943.)

From Cpl. A. L. R. Crick, Stalag 383. (Taking the Intermediate Examination, Autumn 1943)*Dated 16 May 1943.*

"I have pleasure to inform you that five of the six books despatched arrived here on the 15th inst. Once again I must thank the Institute for so kindly helping me out in my difficulty, and I can assure you that any others in this camp interested will have full opportunity of using the books."

From Private A. Pittman, Stalag VIII B*Dated 21 February 1943.*

"I am writing in answer to your letter of 21 December to express my gratitude in despatching books that will be of great assistance in the following of my profession in this captivity. Would it be possible to send some books on elementary surveying and architecture, as I conduct a small class?"

From Sgt. R. Whibley, Stalag 383*Dated 2 May 1943.*

"In reply to your letter of 21 December, I think you would like to know that in this camp we have a study group of 52 men, of whom six are studying for the first exam. of the Chartered Surveyors' Institute, five for the Intermediate, 20 for the Clerk of Works Association exam., twelve regular soldiers who are studying to become military foremen of works and four for the Intermediate and Final R.I.B.A. exams. Although the Red Cross have sent us a considerable number of books, we are still very short, especially on building construction. Any books you send, therefore, will be greatly appreciated by the group. Thanking you for your interest in our welfare."

(N.B.—Over 50 selected books were despatched in answer to this appeal.)

WAR-DAMAGED AND DESTROYED HOUSES

IMPORTANT NEW PROVISIONS

The provision of housing accommodation being in the public interest, the Treasury has given to the War Damage Commission a direction which is of vital importance to many owners of houses which have been severely damaged, or even destroyed.

The effect of the direction is that the Commission will be able to pay, if and when the work is done, the reasonable cost of restoring or rebuilding houses (a cost of works payment) in the two following classes, even where totally destroyed :

- (1) Any houses built after 31 March 1914.
- (2) Also houses built before 31 March 1914, where the Commission is satisfied that immediately before the war damage the structure was practically as sound as at the date of building and that the design, lay-out and amenities of the houses were reasonably equal to those of similar houses built since 1914.

The direction also enables the Commission to pay for the reasonable cost of repairs in the following additional categories of houses :

- (1) Houses (excluding houses condemned under the Housing Acts) where the Commission considers that there was no structural damage (or only minor structural damage).
- (2) Houses (again excluding condemned houses) where there is some structural damage but the Commission considers it would have been reasonable to reinstate the house in the same form as before the war damage if its condition had been caused by non-war causes (except in those cases where the site value is more than three-quarters of the market value of house and site).

The expression "house" includes flats, tenements and any properties comprising living accommodation where only the ground floor and basement are used for other purposes, such as shops or business premises. On the other hand, it does not include makeshift buildings.

The direction provides that the powers shall not be operated where that course would result in injustice to any person interested in the kind of war damage payment to be made.

Owners of property coming within the classes named above who may be considering offers to buy their war-damaged or destroyed houses are advised to consider the possible effect of this direction on their eventual claim to a war damage payment.

The direction is *not* an authority to do the work concerned, which remains subject to the need to obtain any necessary planning or other consents, and owners are reminded that they must obtain a building licence from the Ministry of Works if the cost of repair, together with the cost of any other building work carried out on the property during the preceding twelve months, exceeds £100. It should be emphasised that the Commission can only pay a cost of works payment after the works to make good the war damage have actually been carried out.

THE TREASURY DIRECTION

In order to secure that the provisions of Part I of the War Damage Act, 1943, relating to the making of payments in respect

of war damage, shall be executed in conformity with the public interest as respects the provision of housing accommodation, their Lordships under the powers conferred upon them by Sub-section (1) of Section 20 of the said Act direct, but without prejudice to the powers of the Commission under Section 13 of the said Act, that the Commission may exercise the powers of Sub-section (3) (b) of Section 20 of the said Act in relation to any house in the undermentioned circumstances unless, in the opinion of the Commission, the exercise of such powers in any particular case would involve injustice to any person interested in the question of the kind of payment to be made. For the purposes of this Direction the expression "house" includes flats, tenements and any properties comprising living accommodation, if no more than the ground floor and basement are used for purposes other than living accommodation :—

- (1) Any house erected not more than 25 years prior to 31 March 1939, whatever the extent of the war damage.
- (2) Any house erected more than 25 years prior to 31 March 1939 which in the opinion of the Commission was, immediately before the occurrence of the war damage, structurally not appreciably less sound than when it was erected and in design, layout and amenities reasonably similar to houses of the same type erected since 1914, whatever the extent of the war damage.
- (3) Any house (other than a house which at the date of damage was the subject of an Order made under a statute relating to housing, being either (a) a Demolition Order, or (b) a Clearance Order confirmed by the appropriate Minister, or (c) a Compulsory Purchase Order confirmed by the appropriate Minister where the compensation to be paid would be the value of the land as a site cleared of buildings) the war damage to which did not, in the opinion of the Commission, involve structural damage or only involved minor structural damage.
- (4) Any house (other than a house where, in the opinion of the Commission, the value of its site for redevelopment at 31 March 1939 would exceed three-quarters of the market value at the same date of the house and site) which after the war damage was not in such a condition from all causes, including war damage, that, in the opinion of the Commission, it would have been unreasonable in the conditions existing at 31 March 1939 to have reinstated the house to the form in which it existed immediately before the war damage.

FEES FOR THE REPAIR OF WAR DAMAGE

With reference to the note published on page 272 of the September JOURNAL regarding fees for partial service, the Royal Institute has been informed by the War Damage Commission that, while they cannot for administrative reasons undertake to review all settled cases, they will be prepared to consider requests from claimants or their professional advisers for payment of the appropriate part fee where the conditions are satisfied. Application should be made to the Commission's Regional Office.

MEN STUDENTS UNFIT FOR MILITARY SERVICE

Permission has been received from the Ministry of Labour and National Service to publish the following letter in the JOURNAL for the information of students concerned :

Ministry of Labour and National Service,
15 Portman Square,
London, W.1.

27 September 1943.

Ref. M.122257.

MEN STUDENTS UNFIT FOR MILITARY SERVICE

DEAR SIR,—Deferment of calling-up for medically fit students is now restricted to promising students taking courses which will qualify them for service or employment that is directly connected with and vital to the prosecution of the war. It is thought that you may like to know the position of students who are unfit for military service. The administrative arrangements made

by the Ministry of Labour and National Service in regard to these students are of less restricted application.

Men who, when medically examined under the National Service Acts, are placed in Grade III or IV are not, under present arrangements, called up for service in the Forces, but they are normally required by virtue of the powers of the Minister of Labour and National Service under Defence Regulation 58A, to take up or continue in work of national importance. The Ministry will, however, not make this requirement in the case of certain students in the circumstances set out below.

Men born in 1924 or 1925 who have been placed in medical Grade III or IV, and who have obtained the Higher School Certificate or the Senior Leaving Certificate in Scotland or are certified by the Head of their university, college or school to

have reached an equivalent standard of education to that of the Higher School Certificate, may make application to the appropriate University Joint Recruiting Board if they wish to begin or continue, at a university or other place of further education, a course of study for a university degree or diploma or for a qualification of comparable standing. The Joint Recruiting Board, if satisfied that these conditions are satisfied, may recommend that the Ministry of Labour and National Service should refrain from requiring the student to take up employment, so as to enable him to study for a first degree, diploma or comparable qualification. It may also be possible to allow a short additional course of study (e.g., a post-graduate course for the training of teachers) to promising students, on the recommendation of the academic authorities, when they have obtained their first qualification. All recommendations from the Joint Recruiting Boards are conditional upon satisfactory progress in studies and upon the performance of part-time national service (e.g., in the Home Guard or Civil Defence) unless in any particular case the student is specially recommended (e.g., on grounds of ill-health) for exemption from the latter requirement. The recommendations are also subject to periodical review.

Where a student is thought to satisfy the above conditions, the Head of his educational establishment should send particulars of his case to the nearest University Joint Recruiting Board. In addition to setting out the student's position in regard to the conditions described, the particulars should give the student's full name, home address, National Service Registration number (as shown on his certificate of registration N.S.2), and the address of the local office of the Ministry of Labour and National Service shown on the certificate of registration N.S.2. A list of the University Joint Recruiting Boards, with addresses, is enclosed. It should, perhaps, be explained that each of the Boards is presided over by a member of the staff at the university concerned, and includes other representatives of the university among its members.

It should be noted that the above arrangements do not apply to students born before 1924 who may wish to begin a course of further education. Such men will normally be required to take up or continue in work of national importance. The Joint Recruiting Boards have, however, power to make recommendations in regard to medically unfit students born before 1924 who were already engaged, before the summer of 1943, on courses

of further education. In such cases the Head of the student's educational establishment should send particulars to the nearest Joint Recruiting Board in order that the Board may review the student's position in the light of the arrangements made for unfit students born in 1924 and 1925. Favourable recommendations from the Boards will in these cases also be conditional upon satisfactory progress and upon the performance of part-time national service unless specially excused, and will be subject to periodical review.

Yours faithfully,

(Signed) D. DAICHES RAPHAEL.

LIST OF UNIVERSITY JOINT RECRUITING BOARDS

| University Joint Recruiting Board | Address |
|-----------------------------------|--|
| Aberdeen | Medical Board and Recruiting Centre, Old Infirmary Buildings, Woolmanhill, Aberdeen. |
| Aberystwyth | University College of Wales, Aberystwyth. |
| Bangor | Employment Exchange, Caernarvon. |
| Birmingham | 31 Calthorpe Road, Edgbaston, Birmingham, 15. |
| Bristol | Employment Exchange, 20 Nelson Street, Bristol, 1. |
| Cambridge | Employment Exchange, Newnham Road, Cambridge. |
| Cardiff | The Registry, University of Wales, Cathays Park, Cardiff. |
| Durham | Tankerville House, Tankerville Terrace, Newcastle-on-Tyne. |
| Edinburgh | Medical Board and Recruiting Centre, Music Hall, 54 George Street, Edinburgh. |
| Exeter | University College of South-West of England, Gandy Street, Exeter. |
| Glasgow | 14 University Gardens, Glasgow, W.2. |
| Hull | University College of Hull, Cottingham Road, Hull. |
| Leeds | Employment Exchange, Eastgate, Leeds, 2. |
| Leicester | Employment Exchange, Charles Street, Leicester. |
| Liverpool | Renshaw Hall, Renshaw Street, Liverpool, 1. |
| London | School of Hygiene and Tropical Medicine, Keppel Street, London, W.C.1. |
| Manchester | The University, Oxford Road, Manchester, 13. |
| Nottingham | Employment Exchange, Castle Boulevard, Nottingham. |
| Oxford | No. 2 Staircase, Balliol College, Oxford. |
| Reading | Allocation Local Office, South Street, Reading. |
| St. Andrews | Employment Exchange, 50 Dock Street, Dundee. |
| Sheffield | Employment Exchange, West Street, Sheffield. |
| Southampton | Employment Exchange, Millbrook Road, Southampton. |
| Swansea | University College of Swansea, Singleton Park, Swansea. |

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 BOZIER, G. A. [S.], Pilot Officer R.A.F.
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 LE ROSSIGNOL, J. A. [A.], Flying Officer R.A.F.
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CLINGING, B. J. [S.], Sgt. Navigator R.A.F.
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 HARRISON, J. E. K. [F.], Lieut. R.E.
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 HEATHCOTE, C. [S.], Q.M.S.R.E.
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 HENSON, A. E. [F.], Lieut.-Col. R.E.
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 HOWRIE, R. J. [A.], Lieut. R.E.
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 LEWIS, GLYN T. [L.], L/Cpl. R.E.
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 LINFIELD, G. R. [A.], 2nd Lieut. R.E.
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 WHITIAM, JAMES [A.], Lieut. R.E.
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 YATES, PETER [A.], L.A.C. R.A.F.
 YOULDON, E. B. [A.], Cadet S.A.A.

DISCHARGED ON MEDICAL GROUNDS

HAYWOOD, D. A. [L.], Pilot Officer R.A.F.
 PEARLMAN, M. [A.], Lieut. R.E.
 WILSON, JOHN O. [S.], L.A.C. R.A.F.

RELEASED FROM THE A.I.F. FOR SPECIAL DUTY IN ENGLAND

LEWIS, B. BANNATYNE [F.], Lieut. Engineer Field Co. A.I.F.

Obituary

HENRY CLEMENT CHARLEWOOD [Ret. F.]

The death occurred at Beckenham on August 3 of Mr. Henry Clement Charlewood, in his 87th year.

Son of the Rev. Thomas Charlewood, one time Vicar of Kinoulton, Nottinghamshire, he served his articles with Mr. Crowther of Manchester and first practised as an architect in that city. Later he joined his brother-in-law, the late William Searle Hicks, at that time practising in Newcastle-upon-Tyne and with him in 1888 founded the firm of Hicks & Charlewood, carrying out many church buildings of note in the North of England and elsewhere.

He was President of the Northern Architectural Association in the years 1910 and 1911, and retired from active practice in 1916, when he went to live in Somerset and devoted his time to antiquarian and other pursuits.

One of the earliest students to pass the qualifying examination of the R.I.B.A., he was gratified in 1938 to receive a letter of congratulation from the President on the completion of his 50 years membership of that body.

In professional and private interests, Mr. Charlewood was a man of sound principles and throughout the whole of his long life he adhered strictly to a high standard of personal integrity.

KENNETH WOOD [A.]

Kenneth Wood died on 3 October at the age of 73, having continued

his professional work until the outbreak of war, which terminated for him an architectural career of 51 years.

He was articled in 1888 to Mr. Henry Grieves, a Sunderland architect, and later came South : after the customary period as assistant to various architects in London, he started in practice in the Byfleet and Woking district, in the halcyon days when wealthy business men from London were building themselves country houses near the Surrey golf courses.

In 1906 he took into partnership Mr. John Sarvis, and together they designed many houses in Byfleet, St. George's Hills, Weybridge, Hook Heath, Woking, Pyrford and elsewhere in Surrey. As the era of the larger country houses declined his practice veered to smaller houses, business premises, shops, offices, village halls and Wesleyan churches at Knaphill and Byfleet.

After his first partner's death in 1928 he formed a partnership with C. H. Rose [F.], of Leatherhead, Surrey, and continued in practice as Kenneth Wood & Rose at Woking and Leatherhead until the outbreak of war, when the partnership had to be suspended.

Kenneth Wood was a well-known character in Woking, where he lived for the last twenty-five years or so, serving the local community in many ways outside the sphere of his professional work, and good proof of his abilities as an architect—on the friendliest terms with the many clients for whom he had worked.

C. H. R.

Correspondence

HOUSE CONSTRUCTION OF A DEFINITE LIMITED LIFE

The Cottage, Northaw, Herts.
November 10.

The Editor, THE JOURNAL R.I.B.A.

DEAR SIR,—The Memorandum by the R.I.B.A. on "House Construction of a Definite Limited Life" published in the Journal for October, has been criticised on the grounds that it is superficial and ill-informed. It is to be hoped that when this difficult subject is eventually investigated by those qualified to do so the following considerations will be borne in mind:

1. Of what value is permanence in buildings? Surely of little value when the social usefulness of a building has been outlived. A proper study of limited life can only start from a full and serious review of the degrees and difficulties of permanence, the reasons for and degrees of impermanence and the effects of setting a limit to life. Standardisation and prefabrication can never be "a reason for considering policy"; they are purely means to ends.

2. Is it right to assume so rigid and limited an idea of craftsmanship as has been done by the authors of this memorandum? Such phrases as "suppression and supercession of both craft and skill," "preserving the skilled crafts," etc. smack of the phobias of Captain Swing and Ruskin. True craftsmanship is a living phenomenon which moves with the times and to which the idea of "preservation" must always be alien. The idea that the assembly man with a spanner must necessarily be an unskilled robot, and the man with a chisel or a saw the opposite, is of course ridiculous. The thoughts and research that have been given to this subject (e.g., by Sombert, Chase, Mumford, Rabino-witch) suggest that the idea of craftsmanship dying out is a phantasy; that for each craft that is outmoded many new ones are formed. Who will care to say that the capstan-setter, the jig-borer machinist, the man at the control panel of the rubber die-press is not a craftsman? (In any case it is a pity to hang this particular hat on the peg of limited life with which it is very indirectly associated).

3. The assumption that "House Construction of Limited Life refers to housing to be erected under a relaxed code of building byelaws wherein a poorer quality of construction and material would be acceptable" is very sweeping. It is by no means proved that the altered weight/strength ratio to be found in many new proposals for dry construction indicates a poorer quality of construction or material. In fact the whole tendency of building research is rather in an opposite sense, towards a more scientific appraisal of the physical properties of materials to achieve quality, efficiency and economy.

4. The memorandum assumes that present finance arrangements for local authority housing will remain unaltered. The loan sanction categories of permanence for housing are not based upon physical properties but are suitable amortisation periods with a rough distinction between brick (60 years) and timber (40 years), both of course arbitrary from a technical point of view. Short life building and new materials may perhaps not fit these categories but it will be a strange inversion, if, as implied, we avoid new techniques because the finance machine is rusty and inflexible.

5. The tendency in house-building is for the proportion of equipment to carcase to increase, and most of this equipment is of the replaceable type. Thus a full analysis of the permanence and replaceability of the various elements must be made before a conclusion can be reached. Consideration should also be given to the possibility of separating the above-ground structure (occupiers' concern) from the below-ground works including foundations, drains, fences and roads, and making the latter the concern of local authority.

Yours faithfully,

A. M. CHITTY [F.]

79 Northway, London, N.W.11.
8 November 1943.

The Editor, THE JOURNAL R.I.B.A.

SIR,—The Report of The Royal Institute of British Architects on House Construction of a Definite Limited Life, published in the October JOURNAL with the consent of the Ministry of Health, is of a dismaying superficiality. The question of the provision or not of such housing will obviously depend upon issues more fundamental and less adaptable than the structural ones here considered, and one would, therefore, have expected to find at least some positive recommendation related to the actual provision of such houses. Instead the Committee have gone out of their way to disparage new techniques as such.

Whatever may be the structural or economic merits or demerits of short-life housing, any serious study of modern techniques reveals immense possibilities for improvement over our traditional methods of house construction. It therefore seems little short of suicidal that relative to these new methods the Institute should cast itself publicly in the role of the man who walked before the early motor car displaying a red flag.

We are, Sir, yours faithfully,

D. D. HARRISON [A.],
J. M. ALBERY [A.].

Book Notes

Regional Planning, by L. B. Escritt. 8vo. 263 pp. Allen & Unwin. 1943. 12s. 6d.

Mr. Escritt's book is a serious attempt to collect and collate the essential scientific data which have become necessary to the process of territorial planning. The importance of a thorough survey is rightly stressed; and the sections on geology, soil, agriculture, land drainage, water supply and sewage disposal, follow. The location and size of towns and industry, and the problems of traffic and transport are also dwelt upon, with numerous quotations from the most recent publications, enhanced by a very complete bibliography.

The book, indeed, seems designed to be an embryo technical *vade-mecum* for planners, and might well be expanded on similar lines, to the size of an encyclopedia.

Whilst providing a great deal of scientific information and opinion, however, the subject of *Regional Planning* is hardly in proper focus when we find, for instance, a comprehensive syllabus

for the education of the "planner," and a "compact design for a percolating filter scheme," included as pertaining to that study. Nowhere, in fact, is a planning "Region" defined, or the economic, functional or social characteristics which would constitute a Region, considered—a matter upon which further research is much needed, to provide a durable basis for the re-grouping of existing planning units.

Apart from the collection of scientific data, Mr. Escritt has some suggestions as to planning methods, by means of "land suitability charts," which by a process of transparencies would eliminate unsuitable users, until the "right" user is found. There is something rather naïve in this idea, but on the other hand there may be some usefulness in a kind of preliminary zoning which proceeds by a negative, as well as a positive, application.

On the size of towns, the author does not agree with those who would determine an ideal size; but shares the views quoted that the size of a town must be representative of its functions, varied in

PERKINS (J. B. WARD) 72.033/034 (458.2)
Medieval and early renaissance architecture in Malta. (*From*
Antiquaries' Journal, July—Oct. 1942.)
pam. 9¹/₂". [Lond. 1942 or —43.]
Presented by the Author.

ROWLANDSON (T.) and PUGIN (AUGUSTUS) 72.034 (42.1) 88
The Microcosm of London : 1808—.
*Plates.—New ed.] Text by John Summerson. (King Penguin
books.) 7¹/₂". 32 pp. + 16 pls. (backed). Lond. &c. :
Penguin Books, 1943. 2s.
Presented by Mr. B. A. P. W. Lewis [A.], and R.

WRIGHT (FRANK LLOYD) 72.036.6 (73) : 92 W
—L—W—. An Autobiography.
[New ed. or work.] 'First ed.' [in this form]. 8¹/₂" x 8¹/₂".
(vi) + 561 pp. + sectl.-title pls. + pl. New York :
Duell, Sloane & Pearce. [1943.] £1 16s. P.
Orig. ed., 40s., 1928, in Library.

DRAWING

KENISON (ERVIN) and MCKINNEY (JAMES) 72.064 : 621
Mechanical drawing.
[? Revised ed.] Revised by T. C. Plumridge. 8¹/₂". 328 ('330'—2) pp.
Chicago : Amer. Technical Society. 1943. (16s.) P.
Chapters paginated separately, as well as consecutively.

ARCHITECTURAL VOCATION ; PROFESSIONAL PRACTICE 72.07 folder

MINISTRY OF HEALTH 72.07 : 352 : 940.5
National Service Acts, 1939 to 1942. Registration for Employment
Order, 1941. Control of Engagement Order, 1943. (Circular 2767.)
leaflet. 8¹/₂". Lond. 1943. R.

LEAVER (J. B.) 72.08 : 334.1
Building societies ; past, present and future. (Design for Britain
series, 19. Second series [numbd. consecutively].)
pam. 8¹/₂". Lond. : Dent. 1942. 6d. R.
71 : 3 R.I.B.A. file

R.I.B.A. : RECONSTRUCTION COMMITTEE dupl. on 71 : 3 arch files
Interim reports : 72.08 : 34
No. 7. On the rationalisation of building legislation (second report).
(R—C— : Building Legislation Group.)
dupl. typescript. 13¹/₂". 1942.
72.08 : 34

MINISTRY OF WORKS : CODES OF PRACTICE COMMITTEE &c.
Reports : 2nd. (Sept.)
pam. 9¹/₂". Lond. : H.M.S.O. 1943. 3d. R.
72.08 : 34 (79)

PACIFIC COAST BUILDING OFFICIALS' CONFERENCE, Los Angeles
Uniform building code. 1943 edn.
With revisions and additions . . . 1942. Published . . . 1943.
Printing . . . 1943. 7¹/₂". 304 ('322'—18) pp. Los Angeles. 1943. R.

JAMES (B. E.) 72.08 : 347.23
House ownership and tenure. (Design for Britain series, 160.)
pam. 8¹/₂". Lond. : Dent. [1942.] 6d. R.
Inf. file 72.08 : 347.23] 696.98 : 744.3

DUFTON (A. F.)
The Window scale. (*From* Illuminating Eng. Socy., viii, 3, Mar.)
leaflet. 9". Lond. 1943.
Presented by the B.R.S. (3).

WILLIS (A. J.) 72.083.123
Elements of quantity surveying.
2nd ed. 9¹/₂". xi + 272 pp. + (ii) folding pls. Lond. :
Crosby Lockwood ; (temply.) author, 3 Denbigh Rd., W.13.
1940. R.
1st ed. 1935 in Library.
72.089 arch file + 69.029 : 940.5

MINISTRY OF WORKS AND PLANNING
Wartime building supplies. Schedule of requirements for govern-
ment departments.
3rd ed. (Jan.) [small format]. pam. 9¹/₂". Lond. :
H.M.S.O. 1943. 1s. R.

List of revisions. (June.)
leaflet. 5" x 6". Lond. : H.M.S.O. 1943. 1d. R.
72.089 arch file

MINISTRY OF HEALTH 72.089 : 69.07] 69.059.2
Repair and maintenance of buildings. (Circular No. 2828.)
(June 9.) leaflet. dupl. typescript. 13". 1943. R. (2).
[Same.] (Circular 2828 A.) (June 25.) 1943. R.

WRIGHT (C. KENT) 352
The A.B.C. of local government. (National Association of Local
Government Officers.)
7¹/₂". 208 pp. Lond. : Evans Bros. [1939 or -38.] 4s. 6d.
Presented.

BUILDING TYPES
(CIVIL)

Inf. file 725 : 624/628 (73)

CHAMBER OF COMMERCE OF THE UNITED STATES (OF AMERICA),
Washington : CONSTRUCTION AND CIVIC DEVELOPMENT DEPART-
MENT

Plan now for future public works.
pam. 9". Washington. [between 1941 and 1943.] R.
× MS.

EDWARDS (A. M.) 725.171 (496.11)
The Houses and palaces of Istanbul. (Thesis for Final Examination,
July.)
typescript, D., & Repr. 13". [1943.]
Presented by the Author.
× MS.

WYATT (S. T.) 725.28 + 725.355
The Modern abattoir. (Thesis awarded distinction in Final
Examination, July.)
Pt. i ; Pt. ii, Buildings for the storage and processing of meat &c.,
in 1 case. typescript, & Repr. of D. 13". 1943.
Presented by the Author.

NATIONAL ASSOCIATION OF DAY NURSERIES, New York 725.573
When mother's away. A guide to the development of children's
day care units in wartime.
Reprint. By Child Welfare League of America.
replica typescript. 9". New York. 1943. 50c.
Presented by the Association.

DENING (C. F. W.) 725.716 : 728.53 (42.41 B)
Old inns of Bristol. Written and illus. by C. F. W. D.—
8¹/₂". 116 pp. Bristol : Jn. Wright ; Lond. :
Simpkin Marshall. 1943. R.
Presented by the Author [F.J.]

UNITED STATES : [WAR OFFICE] 725.75 : 725.186.2 (73)
Citadels of democracy.—Camps and plants for men and munitions.
10¹/₂" x 13¹/₂". [Washington.] Govt. Printing Off. [1941.]
*Presented through the American Library, U.S. Office of War
Information, England.*

R.I.B.A. Inf. file 725.835 + 728.48 + 727.1 : 725.835
Buildings for community and social centres. Compiled by the library
of the R.I.B.A. and circulated by the B[ritish] I[nstitute] of A[dult] E[ducation] &c. [Community centres, &c. ; youth centres and boys'
and girls' clubs ; village colleges.]
dupl. typescript. 13". [1943.]

(RELIGIOUS)

SOPER (ALEXANDER COBURN), iii 726.1 (52) : 294.3
The Evolution of Buddhist architecture in Japan. (Princeton
Monographs in Art and Archaeology, xxii.)
11¹/₂" x 8¹/₂". xvi + 331 pp. + pls. Princeton, U.S. : U.P.
Lond. : Oxford U.P. 1942. £3 12s. 6d. P.
726.54 (42.58 H)

HOCKERILL, BISHOP'S STORTFORD, Herts : CHURCH
All Saints' church. Four memorable years 1935-39. [Destruction
of old and building of new church]
pam. 7¹/₂". Hockerill. [1939.] *Presented.*

TURNER (P. J.) Inf. file 726.54 (42.64)
The Churches of Suffolk and their treasures. (*From* Canadian
Geographical Society : Canadian Geographical Journal, xxvi, 5, May.)
extract. 10¹/₂". 1943.
Presented by the Society at the request of the Author [F.J.]

(EDUCATIONAL)

Farquhar (Alexander) 727.112.21
Thesis on Nursery schools, their design and equipment. (Thesis
for Final Examination, July.)
typescript, D. & Repr. 13". [1943.]
Presented by the Author.

(DOMESTIC)

HILVER (C. ISABEL) Inf. file 728 : 649
"Eventide homes" . . . With plans from the Housing Centre.
Revised ed. pam. 8¹/₂". Hampstead : the author,
9 Worsley Rd. 1936. 2d. *Presented.*

TIMBER DEVELOPMENT ASSOCIATION Ltd. 728 : 694.1 : 693.061
Prefabricated timber houses. A statement &c. pam. 8 $\frac{1}{2}$ " [Lond. 1943.] R.

YORKE (F. R. S.) 728.036.6
*The Modern house. 4th ed. 10" x 7 $\frac{1}{2}$ ". (iv) + 224 pp. Cheam : Archl. Press. 1943. £1 1s. Presented by the Author [F.] (2), and P. (4).

FAIRCHILD (E. C.) 728.1
Housing in a well-planned Britain. (Design for Britain series, 17.) pam. 8 $\frac{1}{2}$ ". Lond. : Dent. [1942.] 6d. R.

MANNIN (ETHEL) 728.1
Castles in the street. (Design for Britain series, 15.) pam. 8 $\frac{1}{2}$ ". Lond. : Dent. [1942.] 6d. R.

MANSBRIDGE (ALBERT) 728.1
"Wise for thy houses." (Design for Britain series, 3.) pam. 8 $\frac{1}{2}$ ". Lond. : Dent. [1942.] 6d. R.

ASSOCIATION OF BUILDING TECHNICIANS 728.1
On housing problems. &c. [By various authors.] [Report of a Conference June 1943.] pam. 7 $\frac{1}{2}$ ". Lond. [1943.] 6d. R. Inf. file 728.1 (06)

NATIONAL FEDERATION OF HOUSING SOCIETIES and CO-OPERATIVE PERMANENT BUILDING SOCIETY
Housing societies and how they can assist . . . after the war. pam. 7 $\frac{1}{2}$ ". Lond. [1943.] 1d. R.

LEEDS, CITY : HOUSING COMMITTEE 728.1 (42.74 L) : 940.5344
Post war housing report, cover title. 13 $\frac{1}{2}$ ". 36 pp. + pls. [Leeds. 1943.] R. 728.1 (73) box N.H.A.

NATIONAL ASSOCIATION OF HOUSING OFFICIALS
Public housing. Yesterday, today, tomorrow. An address given by Herbert Emmerich, &c. (Pubn. No. N 179.) pam. 9". [Chicago.] 1943. Presented by the U.S. National Housing Agency. 728.1 (73) box N.H.A.

UNITED STATES : NATIONAL HOUSING AGENCY
[Constitution.] dupl. typescript. 10 $\frac{1}{2}$ " x 8". 1943.

Housing—our war and post-war jobs. dupl. typescript. 10 $\frac{1}{2}$ " x 8". 1943.

The N.H.A.'s war housing policy. dupl. typescript. 10 $\frac{1}{2}$ " x 8". 1943.

[Leaflets :]
Housing is drafted for war.
A Message to property owners. You can give war workers a place to live.
Questions and answers. Lease your house to your government.
Wanted : a place to live ! 4 leaflets. var. sizes. Washington. 1943. Presented by the Agency. 728.1 (73) box 014.3 + 711.4—163 () : 940.5344 014.3

U.S. : NATIONAL HOUSING AGENCY—OFFICE OF THE ADMINISTRATOR : DIVISION OF URBAN STUDIES
Abstracts of selected material on post-war housing and urban redevelopment. Group ii (May 15). dupl. typescripts, 10 $\frac{1}{2}$ " x 8". 1943. R. [Abstracts of selected material &c.] (A—of postwar publications. Group 2.) Analyses of pending federal bills &c. (N.H.A.—O. of the General Counsel.)

CONNELL (P. H.) and others 728.1 : 312.91
Native housing. A collective thesis &c. (Witwatersrand Univ., Thesis, 1939.) repr. print & typescript. ob. 7 $\frac{1}{2}$ " x 8". (vi) + vi + 262 ("258" + 5—1) + secl. titles + xviii pls. Johannesburg : Witwatersrand U.P. 1939. (10s.) R.

BRITTEN (R. H.) Inf. file 728.1 : 614
New light on the relation of housing to health. (From Amer. Public Health Assocn., Amer. Jnl. of Public Health, xxxii, 2, Feb.) pam. 9 $\frac{1}{2}$ ". [N. York. 1942.] Presented.

JONES (J. HARRY) 728.1 : 67
Industrial background of housing. (Design for Britain series, 7.) pam. 8 $\frac{1}{2}$ ". Lond. : Dent. [1942.] 6d. R.

DOUGLAS (F. C. R.) 728.1 [72.08 : 347.23
Rating and taxation in the housing scene. (Design for Britain series, 8.) pam. 8 $\frac{1}{2}$ ". Lond. : Dent. [1942.] 6d. R.

HOUSING CENTRE Inf. file 728.1 : 728.68
Housing in rural areas. Memorandum . . . to . . . Committee on Land Utilisation &c. (From Inst. of Housing : Housing journal, July.) pam. 10 $\frac{1}{2}$ ". n.p. [1942.] Presented.

LANCASTER (H. V.) 728.1 : 940.5344
Post-war homes. (Design for Britain series, 12.) pam. 8 $\frac{1}{2}$ ". Lond. : Dent. [1942.] 6d. R.

LABOUR PARTY 728.1 : 940.5344 + 711 : 940.5344
Housing and planning after the war. The L—P's post-war policy. pam. 9 $\frac{1}{2}$ ". Lond. [1943.] 2d. P. Inf. file 728.1 : 940.5344

NATIONAL UNION OF TOWNSWOMEN'S GUILDS
Townswomen's views on post-war homes. [Evidence to Sub-committee on Design of Dwellings of Central Housing Advisory Committee, Ministry of Health. Based on answers to a questionnaire.] In The Townswoman, journal, x, No. 10 (June). 9 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ ". Lond. 1943. Presented.

CHARTERED SURVEYORS' INSTITUTION Inf. file 728.67
*Farm buildings. Layout, design and construction. Memorandum submitted . . . to the Farm Buildings Committee of the Ministry of Agriculture and Fisheries. In Journal, xxiii, pt. 6 (June). 8 $\frac{1}{2}$ ". Knole. 1943. Presented (2).

HARCOURT-SMITH (SIMON) 728.84 (42.034.8 : 3.) 82-3
The Last of Uptake or The estranged sisters. [Fictional account of hypothetical house.] Illus. by Rex Whistler. 9 $\frac{1}{2}$ ". 80 pp. Lond. : Batsford. [1942.] 15s. R. x MS.

TRIGG (G. H.) 728.932 : 725.4
The Planning and equipment of industrial canteens. (Thesis awarded distinction in Final Examination, July.) typescript & Repr. of D. 13". 1943. Presented by the Author. 728.932.1 : 725.4

EMPIRE TEA BUREAU : NATIONAL CATERING SERVICE, for BRITISH COMMERCIAL GAS ASSOCIATION
*Planning for industrial catering. [Tea kiosks and kitchens.] repr. typescript. 13". unpaged. Lond. [1943.] Presented by the Association (3).

DETAILS, FITTINGS x MS.

HOOPER (D. V.) 729.361 : 726.54 (42.38)
The Church towers of west Somerset. (Thesis for Final Examination, July 1943.) typescript, Penc. D., Map, & Ph. 1942. Presented by the Author.

ALLIED ARTS AND ARCHAEOLOGY

GOODYEAR (A. CONGER) 069 : 7.036.6 (73 NY) (09)
The Museum of Modern Art. The first ten years. 10". 142 ("144"—2) + (13) pp. + pls. [New York. 1943.] (\$3.00.) R.

BUILDING 69 (083.74)

B.S.I. List of British standards, 1942 :
Suppts. : 3rd. (P.D. 100.) (Apl.) 1943. R. (2). 69 : 940.5] 69: 620.19

MINISTRY OF LABOUR AND NATIONAL SERVICE : FACTORY DEPARTMENT
Memorandum on the construction of single storey buildings with suggested precautions to prevent collapse during erection. (Form 1998.) pam. 9 $\frac{1}{2}$ ". Lond. : H.M.S.O. 1943. 2d. P.

DAVIDGE (W. R.) 69 : 940.5344
Plan for the new architecture. (Design for Britain series, 14.) pam. 8 $\frac{1}{2}$ ". Lond. : Dent. [1942.] 6d. R.

STRUCTURAL ELEMENTS Inf. file 69.02

FREE GERMAN INSTITUTE OF SCIENCE AND LEARNING : BUILDING RESEARCH GROUP
Answers to the questionnaire of the [Ministry of Works : Directorate of Post-War Building and] R.I.B.A. Committee on walls, floors, roofs and partitions. dupl. typescript. 13". [? 1943.] Presented by Mr. A. Schauder.

WARD (RONALD) Inf. file 69.021.13 : 69.057.7 : 621.879
Precis of information on mechanical earth-moving equipment.
duplic. typescript + *Repr. of D.* 13". 1943.
Presented by the Author, Major R. Ward, R.E. [A.].

MOLLOY (E.), editor 69.024
*Roof construction and repair. *&c.* (Newnes' Building practice series, 1.)
9". vi + 120 pp. Lond. : Newnes. 1941. 7s. 6d.
Presented, & P.

NATIONAL PITCHED ROOFING COUNCIL, Buxton : TECHNICAL COMMITTEE
Reports: First.—Use of pitched roofs in post-war building.
pam. 8½". Buxton. 1943. 6d. R.

MOLLOY (E.) 69.028.2 + 69.83
*Windows and window glazing. *&c.* ([Newnes' building practice series, 5, *wrapper series title.*])
9". iv + 108 pp. Lond. : Newnes. 1943. 7s. 6d.
Presented, & P.

BUILDING OPERATIONS

MOLLOY (E.), editor 69.057.7
*Builders' machinery and equipment. *&c.* (Newnes' building practice series, 3.)
9". viii + 128 pp. Lond. : Newnes. 1942. 7s. 6d.
Presented, & P.

BUILDING PRACTICE AND INDUSTRY

COPPOCK (R.) and HEUMANN (H.) 69.08 : 331
Design for labour. (Design for Britain series, 13.)
pam. 8½". Lond. : Dent. [1942]. 6d. R.

OXFORD : NUFFIELD COLLEGE 69.08 : 331 940.5344
Employment policy and organization of industry after the war.
A statement.
7½". 70 pp. Oxford & Lond. : Oxford U.P. 1943. 2s. R.
7½" : 3 R.I.B.A. file
dupl. on 7½" : 3 arch files

R.I.B.A. : RECONSTRUCTION COMMITTEE
Interim reports : 69.08 : 940.5344
No. 6. On the capacities of the building industry in relation to reconstruction. (R—C—: Architecture and (the) Building Industry Group)
leaflet. dupl. typescript. 13½". [1942.] 69.088

GERRARD (L. ALLEN) Building practice. . . . introduction to the organization of building businesses. (Manuals of building science series.)
7½". vii + 96 pp. Lond. : Blackie. 1925. 4s. *Presented.*
69.088 : 728.1 (06) + 693.061 (06)

COMMITTEE FOR THE INDUSTRIAL AND SCIENTIFIC PROVISION OF HOUSING
Housing production or the application of quantity production technique to building. Its . . . possibilities. Being the first report *&c.* 9½". 96 pp. Lond. 1943.

MATERIALS

MORLEY (ARTHUR) 691 : 620.1
Strength of materials.
9th ed., reprint. 8½". x + 571 pp. Lond., &c. : Longmans, Green. 1940 (1941). 15s. *Presented.*
Imperfect : 16 pp. missing, displaced by others repeated.

TIMBER DEVELOPMENT ASSOCIATION, Ltd. 691.11 : 674.04
Interim notes on chemical seasoning of timber.
pam. 7½". [Lond.] 1943. R.

BRITISH STANDARDS INSTITUTION 69 (083.74)
B.S. : 691.227.6 : 691.54] 693.068.34 + 69.029
582 : Asbestos cement pipes and fittings.
Revised ed. 1943. 2s. R.

MOLLOY (E.), editor 691.32 + 693.51/55
*Concrete work. *&c.* (Newnes' building practice series, 4.)
9". iv + 140 pp. Lond. : Newnes. 1941. 7s. 6d.
Presented, & P.

YARSLY (V. E.) and COUZENS (E. G.) 691.335 : 679.5] 728
Plastics in the home. (Design for Britain series, 22. Second series.)
pam. 8½". Lond. : Dent. 1943. 6d. R.
× MS.

HOWARD (B. A. P.) 691.335 : 72
The Uses of plastics in architectural design and construction. (Thesis awarded distinction in Final Examination, July.)
typescript, folding table, & *Repr.* (plastic covers). 12½". 1943..
Presented by the Author.

PORTLAND CEMENT ASSOCIATION, Chicago 691.41
Soil-cement mixtures. Laboratory handbook.
10½" × 8". 80 pp. Chicago. [1942.]
Presented by the Association.
Inf. file 691.41 : 016

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH : BUILDING RESEARCH STATION—LIBRARY
Library bibliographies :
No. 54.N. Building in adobe, cob and pisé de terre.
Revised ed. dupl. typescript. 14". 1943. R.

LADE (KARL) and WINKLER (ADOLF), editors 691.55 + 693.6
Putz, stuck, rabitz. Ein handbuch für das gewerbe.
3rd ed. 11½". 324 pp. + xvi pls. Stuttgart : J. Hoffman. [1936.] (£1 10s.) P.

GLOAG (JOHN), editor
The Place of glass in building. With contribns. by L. B. Budden . . . and G. A. Jellicoe *&c.*
7½". 90 pp. Lond. : Geo. Allen & Unwin. 1943. 7s. 6d. R.

MOLLOY (E.), editor 691.73 : 693.068.34
Copper pipe work. *&c.* ([Newnes' building practice series, 6, *wrapper series title.*])
9". iv + 124 pp. Lond. : Newnes. 1943. 7s. 6d. *Presented.*
*Sheet lead work. *&c.* ([Newnes' building practice series, 7, *wrapper series title.*])
9". iv + 108 pp. Lond. : Newnes. 1943. 7s. 6d.
Presented, & P.

691.74 : 693.068.34
Lead pipe work. *&c.* ([Newnes' building practice series, 8, *wrapper series title.*])
9". vi + 122 pp. Lond. : Newnes. 1943. 7s. 6d. *Presented.*

ZINC DEVELOPMENT ASSOCIATION Inf. file 691.75 : 014.3
Abstracts.—A— of recent published material concerning the applications of zinc and zinc alloys, *&c.*
Vol. i, No. 5 (Aug.). dupl. typescript. 7½". 1943. R.

CONSTRUCTION (INCLUDING PREFABRICATION) Inf. file 693.061 : 016

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH : BUILDING RESEARCH STATION LIBRARY
Library bibliographies :
No. 69.N. Prefabrication.
Revised ed. dupl. typescript. 13". 1943. R.
Containing contents of a previous No. 64.
1st ed. 1942 not in library.
Also No. 69.N. Supplt.

BLANCO-WHITE (JUSTIN) Inf. file 693.061 : 654.19
[Prefabrication.] [Broadcast script.] "At home to-day" programme. 1 Sept.

PERCIVAL (DAVID) Inf. file 693.061 : 654.19
[Prefabrication.] [Broadcast script.] "Your questions answered" programme, 18 Aug.

SJÖSTRÖM (C.) 693.061 : 664.1
*Pre-fabrication in timber. A survey of existing methods. (English Joinery Manufacturers' Assn.)
Pt. 1.
8½". (ii) + 46 pp. Lond. 1943. R. (2). 693.1/2

MOLLOY (E.), editor *Brickwork and masonry. A practical guide *&c.* (Newnes' building practice series, 2.)
9". iv + 140 pp. Lond. : Newnes. 1941. 7s. 6d.
Presented, & P.

FREEMASONS : CATECHISMS 693.1 : 366.1
The Early masonic catechisms. Transcribed and ed. by Douglas Knoop, G. P. Jones, and Douglas Hamer. (Univ. of Manchester, Pubns., cclxxxv.)
8½". viii + 194 pp. Manchr. : U.P. 1943.
No. 180 of a limited edn. *Presented by Prof. Knoop.*

KNOOP (DOUGLAS) 693.1 : 366.1 (42.74 S)
The Story of the Royal Brunswick Lodge, Sheffield 1793—1943.
(Printed for the [R—B—] Lodge.)
10½". 51 pp. + pls. priv. prin. [1943.]
Presented by the Author [Hon. A.].

TREDGOLD (THOMAS) 694
Elementary principles of carpentry.
E. Wyndham Tarn, ed. :—
E—p—c— chiefly composed from the standard work of T—T— . . . and a treatise on joinery *&c.* By E. W—T—.
[Another ed.] Reprint (14th imp.). 7½". 312 pp. Lond. : Tech. Press. [18—] (1942). 6s. *Presented.*
7th ed. by Tarn, 1886, and earlier eds., in Library.

MARSHALL (J. E.) 694
First year carpentry and joinery. (Broadway text-books of technology.)
Reprint (5th imp.). 8¹/₂". viii + 184 pp. Lond. : Routledge. [19—.] 3s. 6d. *Presented.*

RILEY (J. W.) 694
A Manual of carpentry and joinery.
Reprint. 7¹/₂". vii + 510 pp. Lond. : Macmillan. 1905 (1941). 7s. *Presented.*

SANITARY SCIENCE AND EQUIPMENT, PROOFING

MATTHEW HALL LIBRARY, . . . London 696/699 : 026
Catalogue &c. [1940 or -41.]

Recent additions to library.
dupl. typescript. 8". 1943.
Presented by Messrs. Matthew Hall & Co., Ltd.

696.1 : 614] 72.088.5 : 696.1

NATIONAL REGISTRATION OF PLUMBERS : LONDON COUNCIL (or L—C FOR THE N—R—OF P—)
Public health and the plumber. (A case for the national registration of plumbers.)
pam. 8¹/₂". Lond. [1943.] 3d. R.

GREAT BRITAIN : PARLIAMENT—BILLS 696.11 : 628.1] 354 (42)
Water undertakings. [H.L.] [As amended in committee.]—
... an act to consolidate &c. (39.) 9¹/₂". Lond. 1943. 1s. 3d.

696.12.068.34 69 (083.74)
BRITISH STANDARDS INSTITUTION
B.S. 1130. Schedule of cast iron drain fittings, spigot and socket type. For use with drain pipes to B.S. 437.
1943. 2s. R. (2).
696.6 : 940.5344

BRITISH ELECTRICAL DEVELOPMENT ASSOCIATION
The Power behind the plan, heading title.
10" x 7¹/₂". 16 pp. n.p. [1943.] R.

DUFTON (A. F.) Inf. file 697 : 53 + 697.9 : 53
Applications of physics to the heating and ventilation of buildings. (From Jnl. of Scientific Instruments, xx, 7, July.)
pam. 11". Lond. 1943.
Presented by the Building Research Station (2).
697 : 662.5/9 binder

MINISTRY OF FUEL AND POWER : COMMITTEE ON THE EFFICIENT USE OF FUEL
Fuel efficiency bulletins : 697.326 : 699.86

No. 17. The insulation of furnaces. 1943.
No. 18. The Sensible use of latent heat (Part one). (F.E.C. 169.) 1943.

No. 19. The sensible use of latent heat (pt. 2). 1943.
No. 20. Cooling firebars in industrial furnaces and boilers. 1943.
No. 22. Utilisation of steam. 1943.

Inf. file 697.8 : 620.193.53

NATIONAL SMOKE ABATEMENT SOCIETY
Plan for clean air. The case for smoke prevention &c.
7¹/₂". [Epsom. 1943.] 2d. R.
698.9 : 621.876 + 698.9 : 621.876.32

BUILDING INDUSTRIES NATIONAL COUNCIL : ADVISORY COMMITTEE ON BUILDING ACTS AND BYELAWS
Code of practice for electric passenger and goods lifts and escalators. 2nd ed. of Code of practice for the installation of l— and e—, 1935.
9¹/₂". 40 pp. Lond. 1943. 2s. 6d. R.
1935 ed. in Reference and Loan Libraries. 699.86 + 699.844.1

PALLOT (A. C.) and ALLEN (WILLIAM)
*Cantor lectures [Royal Society of Arts]. Some aspects of insulation : (1) "Thermal insulation at medium temperatures." By A. C. P.—, (2) "Sound insulation." By W—A—. In Journal of the R—S—A—, No. 4632 (Feb. 5). 9¹/₂". Lond. 1943. *Presented by the Building Research Station (3).*

(A.R.P., WAR DAMAGE)

BRITISH STANDARDS INSTITUTION 699.895 (083.74)
B.S.S. (A.R.P. series).
BS/ARP 18.

Revised ed. 1943. 1s. R.
BURKE (JOHN) 699.895 : 72.025.1] 34
Encyclopaedia of war damage and compensation.
Suppl. pt. No. 9.

[1943.] P.

699.895 : 72.025.1 arch file
MINISTRY OF HEALTH 699.895 : 72.025.1] 69.059.2
War Damage Act, 1941.—Part i . . . ; Part ii . . . (Circular 2875.) leaflet. 8¹/₂". Lond. 1943. R.
War Damage Act, 1941.—Statement relating to temporary works payments and cost of works payments. (Form W.D.P. 4.) leaflet. 13". Lond. 1943.

MINISTRY OF WORKS 699.895 : 72.025.1] 69.059.2 : 354
Special repair service. leaflet. 7¹/₂". Lond. [1943.] R.
With S.R.S. Join the builders' flying squads, leaflet, 9".
699.895 : 72.025.1 arch file

MINISTRY OF HEALTH 699.895 : 72.025.1] 69.059.2 : 728
General scheme for repair of houses, etc. (Circular 2871.) General scheme &c. Advice to local authorities &c. (Appx. to Circular 2871.)
Housing : certified work. (Form C.W. 1.)
Housing : certificate of essentiality. (Form C.W. 2.)
Return &c. (Form C.W. 3.) 5 dupl. typescripts. 8¹/₂" x 7". 1943. R.

ENGINEERING (076) folder
624/628 : 352 (076)

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS
Examinations.
pam. 8¹/₂". [Lond. 19—.] R.

THAMES BARRAGE ASSOCIATION 627.43 (42.209)
Dam the Thames. A matter &c. A plan for a tideless river in London.
3rd ed. pam. 9¹/₂". n.p. 1936. 6d.
Presented by Mr. A. Van Anrooy.
(To be continued)

Membership Lists

ELECTION : DECEMBER, 1943

An election of candidates for membership will take place in December, 1943. The names and addresses of the candidates, with the names of their proposers, found by the Council to be eligible and qualified in accordance with the Charter and Byelaws are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary R.I.B.A. not later than Saturday, 11 December, 1943.

The names following the applicant's address are those of his proposers.

AS FELLOWS (4)

BLAKE : JOHN PATRICK [A. 1924], 24a Bath Road, Hounslow; "Wilowcot," Avenue Gardens, Cranford, Middlesex. A. L. Lang, H. W. Mole and W. F. B. Lovett.

BRADBURY : RONALD, B.A., M.Sc., Ph.D., A.M.T.P.I. [A. 1930], 75 King Street, South Shields, Co. Durham; 8 Thornton Way, N.W.11. Prof. W. B. Edwards, P. C. Newcombe and T. A. Page.

SCOTT : ROBERT DUNCAN [A. 1931], Lloyds Bank Chambers, High Street, Guildford, Surrey; The Steadings, Tilehouse Road, Guildford. A. W. Kenyon, J. M. Easton and Charles Holden.

SMITH : HARRY HIRST [A. 1926], 66 Deansgate, Manchester 3; "Whitegates," Old Hall Lane, Worsley, Lancs. H. T. Seward, Isaac Taylor and Prof. R. A. Cordingley.

AS ASSOCIATES (15)

The name of a school, or schools, after a candidate's name indicates the passing of a recognised course.

BOOTH : RAYMOND RICHARD [Special Final], 21 Faircross Mansions, Longbridge Road, Barking, Essex. T. S. Darbyshire, C. V. Ponder and C. D. Hawley.

CARO : MISS RACHEL ALICE [University of London], Barford, Churt, Nr. Farnham, Surrey. Prof. A. E. Richardson, H. O. Corfato and L. S. Stanley.

CARVILL : LOUIS, Dip.Arch.Dist. [Liverpool] [Univ. of L'pool], 63 Merrion Road, Ballsbridge, Dublin. Prof. L. B. Budden, F. X. Velarde and H. Thearle.

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The Chadwick Trustees recently offered three Prizes of £100, £50 and £25 for the best three Essays on architectural, engineering and administrative principles (relative to Sanitation and Hygiene) which should be observed in the replanning arrangements of war-devastated towns or areas. The Trustees, as a result of very careful consideration of the Essays submitted, have now awarded the Prizes as follows :

FIRST PRIZE of £100 for the Essay submitted by MR. A. F. RUSSELL.

SECOND PRIZE of £50 for the Essay submitted by MR. JOHN BRIERLEY, Assoc. M.Inst.C.E., F.G.S., Chief Engineering Assistant, Borough of Sutton and Cheam, Surrey.

THIRD PRIZE of £25 for the Essay submitted by MR. JOHN MARRIOTT, A.M.Inst.M. and Cy.E., A.M.Inst.P.C., M.R.San.I., Deputy Surveyor and Sanitary Inspector, Wetherby Rural District Council.

Notices

THE USE OF TITLES BY MEMBERS OF THE ROYAL INSTITUTE

In view of the passing of the Architects Registration Act 1938, members whose names are on the Statutory Register are advised to make use simply of the title "Chartered Architect" after the R.I.B.A. affix. The description "Registered Architect" is no longer necessary.

ASSOCIATES AND THE FELLOWSHIP

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the next available election they should send the necessary nomination forms to the Secretary R.I.B.A. as soon as possible.

LICENTIATES AND THE FELLOWSHIP

By a resolution of the Council passed on 4 April 1938, on and after 1 January 1939 all candidates whose work is approved will be required to sit for the examination, which will be the design portion of the Special Final Examination, and no candidates will be exempted from the examination.

NOTE.—The above resolution will not affect Licentiates of over 60 years of age applying under Section IV, Clause 4 (c) (ii) of the Supplemental Charter of 1925.

MEMBERS' COLUMN

PRACTICES

MESSRS. MITCHELL & BRIDGWATER [A. and F.], of 42 Bruton Place, Berkeley Square, W.1, dissolved their partnership by mutual consent on 30 September 1943. The practice will be continued by Mr. Derek Bridgwater [F.] at the same address.

ASSOCIATE (also P.A.S.I. and A.M.Inst.M. & Cy. E.), age 35, wishes to contact member with good potential practice anywhere London area or South England who may desire capable and reliable junior partner after war. Write, Box 1210, c/o Secretary, R.I.B.A.

A.R.I.B.A. wishes to share offices with another member, City of London or Westminster preferred.—Reply Box No. 4113, c/o Secretary, R.I.B.A.

PERSONAL

The present address of Major W. N. Spence [A.], is : c/o Admiralty, 19, Lansdowne Crescent, Edinburgh.

MRS. GEORGE EDGAR MAGNAY has heard that her husband, G. E. Magnay [A.], previously reported "missing" since the fall of Singapore, where he was in Admiralty employment, is a civilian internee in Sumatra.

WANTED

WANTED, Clark's *Gothic Revival*. Mr. Michael Waterhouse [Hon. Sec. R.I.B.A.] wishes to obtain clean copy Kenneth Clark's *Gothic Revival*. Member with copy to sell please write stating price to Staple Inn Buildings, High Holborn, London, W.C.

MR. G. G. PACE [A.] wishes to acquire a copy of *The Architects' Journal* for 16 September 1943. Offers to 46 Clyde Road, East Croydon, Surrey.

MEMBER requires set of modern Stanley (or other) drawing instruments in pocket case for use by promising student; has about £5 to spend. Write, Box No. 2010, c/o Secretary, R.I.B.A.

WANTED to purchase : copy Unwin's *Town Planning in Practice*. Write, Box 1110, c/o Secretary, R.I.B.A.

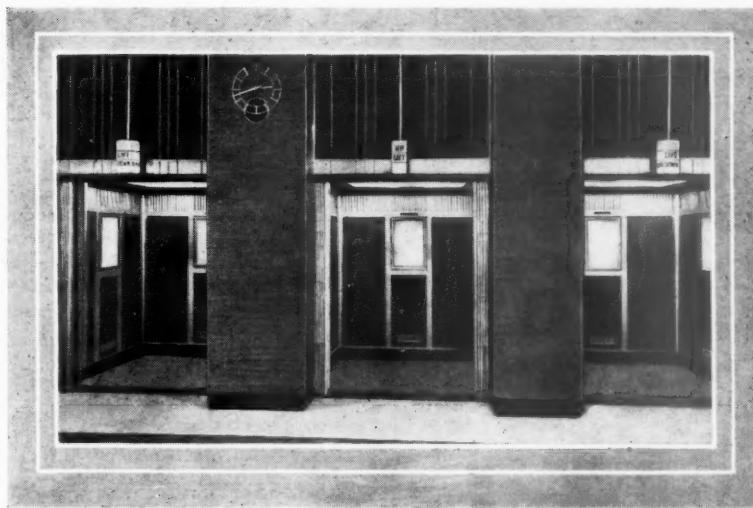
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ASSOCIATE wishes purchase copy *Design of Nursery and Elementary Schools*, by Myles Wright and Gardner-Medwin. Architectural Press, 1938.—Offers to Selby J. Clewer, 4 Gordon Square.

FOR SALE

MEMBER has for disposal : *Domestic Architecture of England during the Tudor Period*, by Garner and Stratton, 2 vols, 1a. fo., original edn. (£25). *Old Cottages and Farmhouses and Other Half-Timbered Buildings*, by Parkinson and Ould. *History of Architecture*, by Banister Fletcher, 5th Edition. *History of Architectural Development* by Simpson, 3 vols. (Last 3 works 10s. 6d. each). Antiquarian drawing board (about £5). Write Box No. 9113, c/o Secretary, R.I.B.A.



Extracts from letters received

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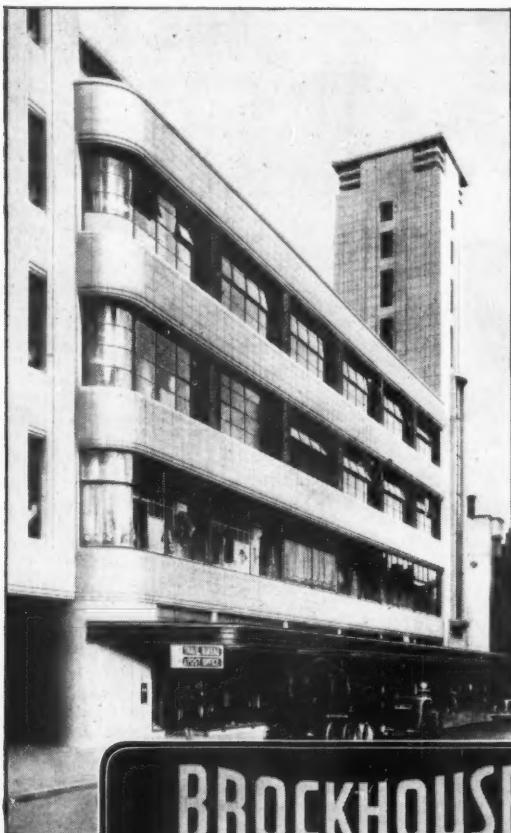
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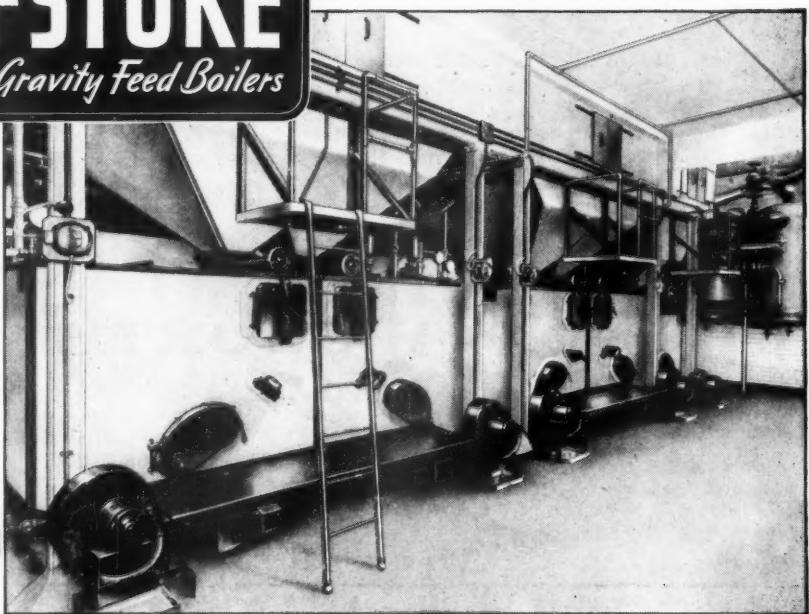
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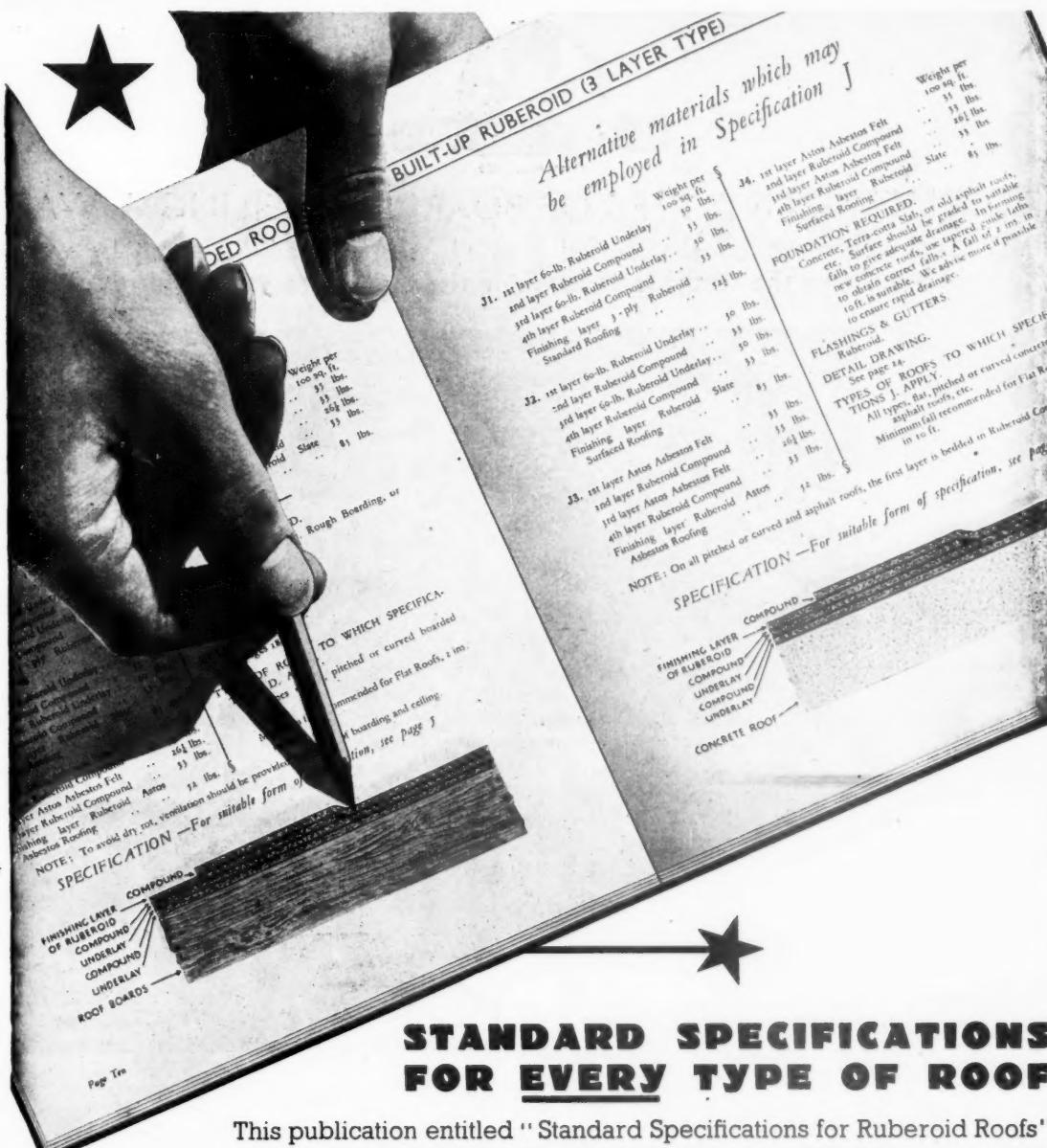
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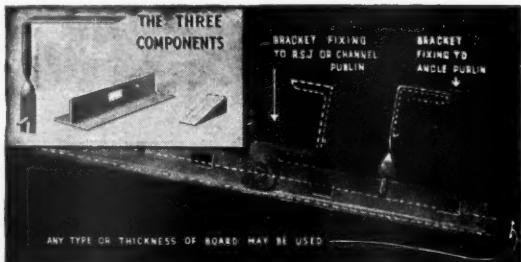
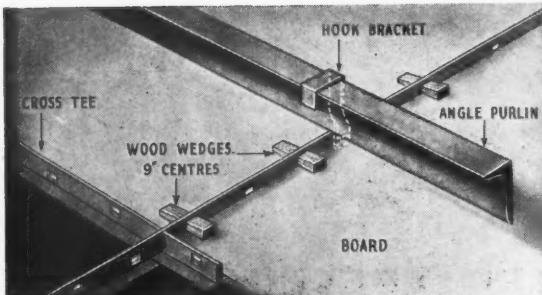


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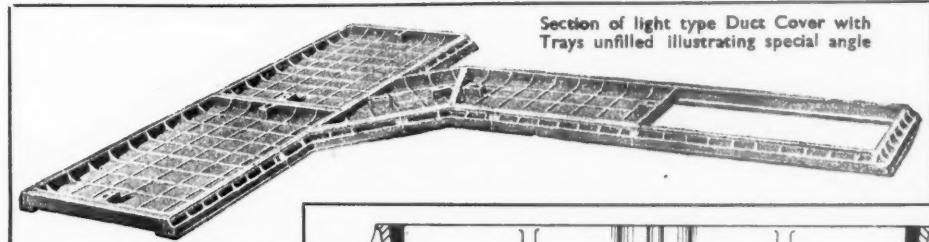
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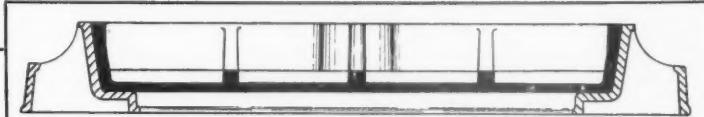
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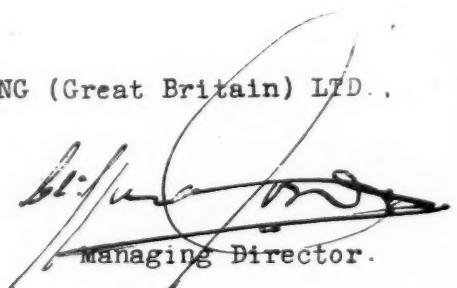
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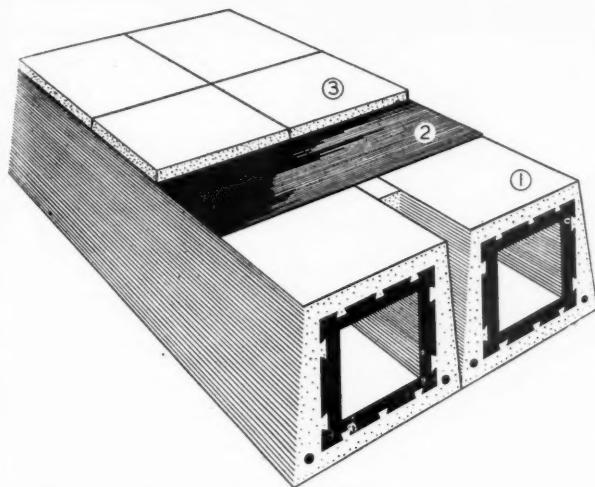
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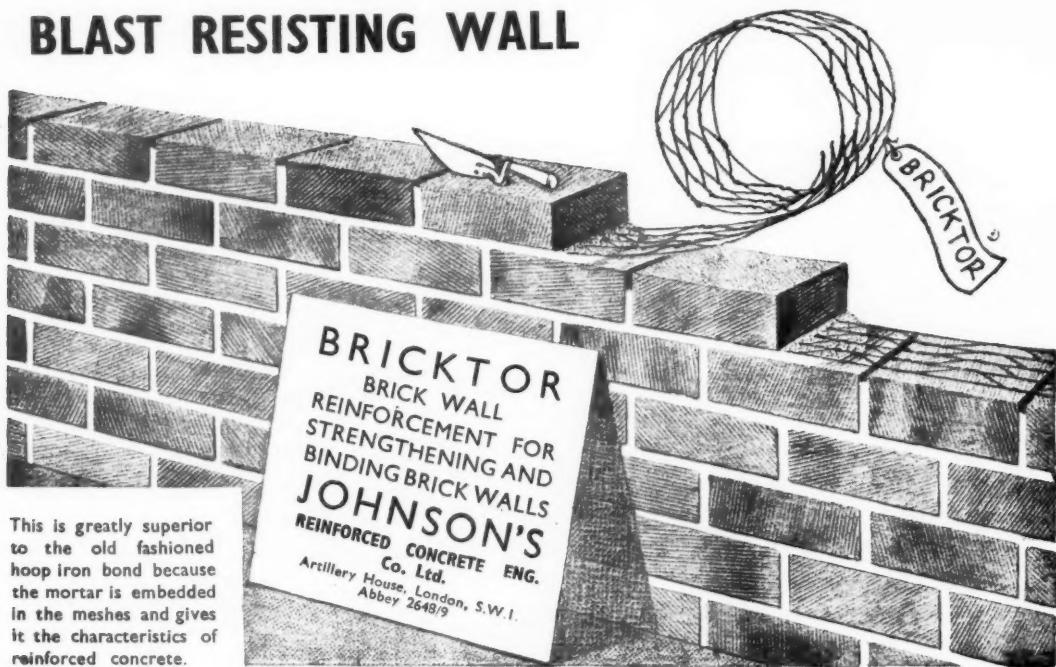
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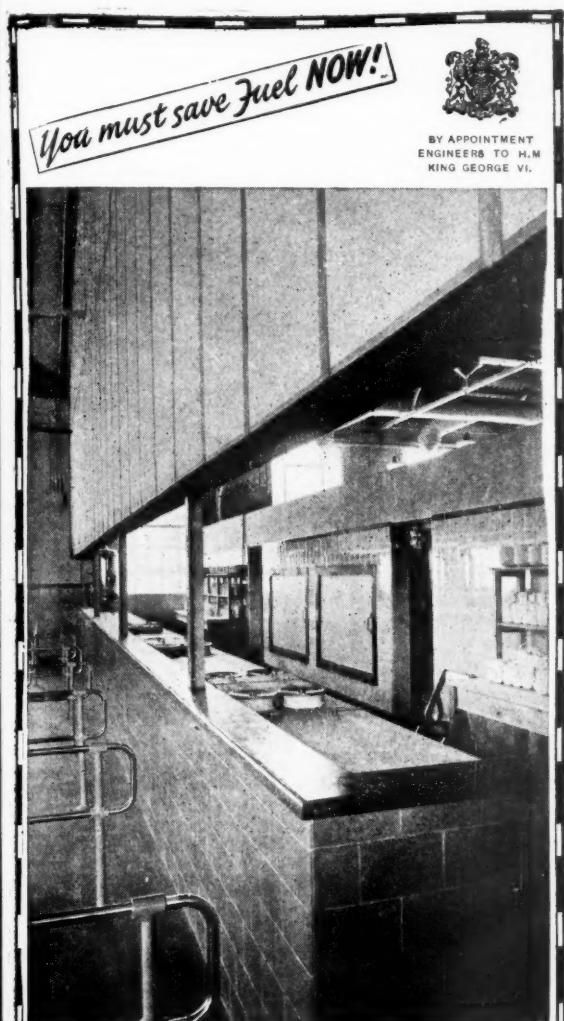


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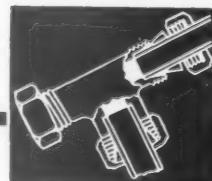
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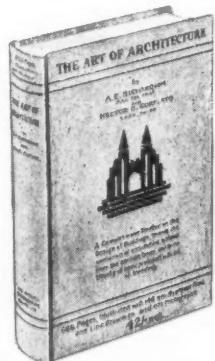
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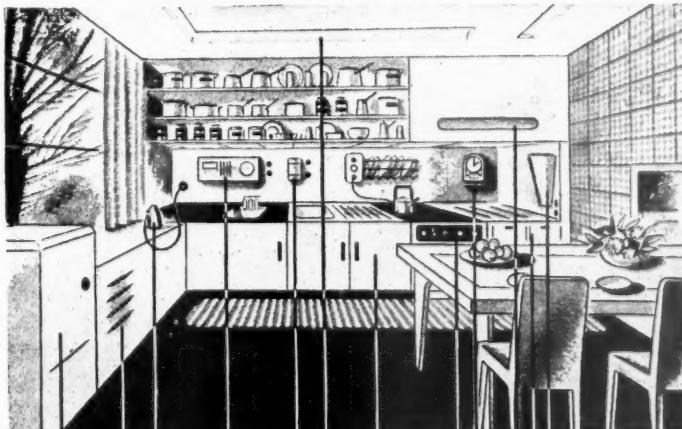
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